(Civil Veterinary Dept)

Veterinary College,
Bombay report

1886-87 to 1893-94
(Except 1891-92)

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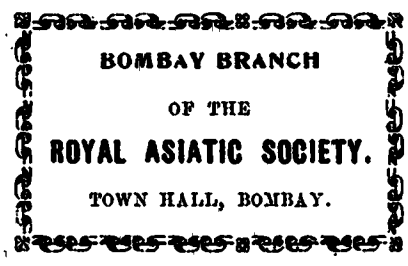

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REPORT

OF THE

BOMBAY VETERINARY COLLEGE

AND OF THE

BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS,

13348C

FOR THE YEAR 1886-87

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1887.

[Price—Three Annas.]

BOMBAY BRANCH
OF THE
Royal Asiatic Society.
CLASS

00133480

REPORT

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BOMBAY VETERINARY COLLEGE

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BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1886.

JJ. H-37

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1887.

No. 267 OF 1887.

Bombay Veterinary College and Hospital, Parel,
Dated 27th April 1887.

FROM

J. H. STEEL, V. S.,
Superintendent, Bombay Veterinary College;

To

THE SECRETARY TO GOVERNMENT,
Revenue Department.

SIR,

I have the honour to submit this the First Annual Report of the Bombay Veterinary College for information of Government. A copy of the 1886 report of the Bái Sákarbái Dinshaw Petit Hospital for Animals, on which the College depends for clinical facilities, is appended, and, I trust, will be considered to indicate a satisfactory development of that important institution, which, also, is under my superintendence.

2. It will be remembered that the Hospital was opened publicly by His Excellency the Viceroy on 10th December 1884, but owing to various reasons its actual working did not commence until the 1st December 1885, when its wards were opened for patients, and for the next seven months it was managed by an agricultural graduate of Saidapet College, Mr. J. F. Lallee, with a fair amount of efficiency. Government, having decided to push on the establishing of the Veterinary College in the financial year 1886-87, deputed me to consult with the Executive Engineer at the Presideney concerning the conversion of an old bungalow on the Parel estate into a central building for College purposes, and the construction of minor buildings on ground placed at the disposal of Government by the Society for the Prevention of Cruelty to Animals, by which it was held in trust as a gift to the Society from the Párs gentleman who is now Sir Dinshaw Maneckji Petit. Mr. K. M. Shroff, as Secretary to the Society, attended at the consultations to represent the wishes of the Society, and then, as on all other occasions, most cordially advanced the College scheme.

3. Sanction having been accorded by Government to the plans and estimates as drawn up, the Public Works Department at once took the work in hand. During its progress Government officers were appointed to the College and Hospital and arrangements were made for the opening of the College and for the working of the Hospital under the clinical control of the Veterinary Officers of Government and under the administrative supervision of the Superintendent. When, on 25th May 1886, I was gazetted Superintendent of the College and Hospital, I at once made a thorough inspection of the estate, the works in progress, and the Hospital, the result being reported to Government in my letter No. 4, dated 29th May 1886, which shows that the Hospital presented capacities for development into a valuable addition to the public charities of Bombay and into a clinical field for practical education of students of the College, that the space and the buildings in course of construction would suffice for the primary requirements of the College, and that teaching work could be commenced in the then current year.

4. After careful study of the existing arrangements of the Hospital during the month of June, I assumed charge on 1st July, and permitted such students as had already entered their names to attend for practical study in the Hospital from that date. The Central College building was placed at my disposal on 1st August, and a certain amount of furniture got in by the 2nd idem, when the first students, with their friends and some representatives of the public press, attended for the introductory lecture and first official inspection of the Hospital. From this date the educational work of the College has been steadily carried out in accordance with the provisional scheme drawn up by me (No. 5, dated 1st June 1886) and approved by Government (Resolution of Revenue Department No. 4357 of 1886), and (subsequently) with the rules and regulations as sanctioned by Government (Resolution, Revenue Department, No 1596, dated 16th March 1887).

5. Mr. J. F. Lallee's service with the Society for the Prevention of Cruelty to Animals terminated on the appointment, as Assistant Superintendent of the College and Hospital, of Mr. S. K. Nariman, a Graduate in Science and Medicine of the

Bombay University with three years' experience as a teacher acquired at the Grant Medical College. Mr. Nariman's appointment was made probationary pending his passing examinations in veterinary science such as would render him legally qualified to practise veterinary surgery. There were numerous candidates for the post, agricultural graduates, medical practitioners, and others, but none possessing all the requisite qualifications, *i. e.*, ability to teach scientifically and practical veterinary acquirements; Mr. Nariman possessed the former, and has shown aptitude in acquiring the latter and in adapting his medical information to veterinary requirements. His knowledge of the system of medical education in Bombay has been of constant use to me in organization of the College, and he has shown tact and zeal in dealing with both students and patients. I am personally and officially much indebted to him, for the past year has been an arduous one to me in educating both officials and students as to their special duties, and Mr. Nariman's suggestions and aid have been constant and valuable.

The two Assistant Surgeons who have been appointed Lecturers at this College, Mr. K. S. Engineer and Mr. N. H. Sukhia, Licentiates of Medicine and Surgery, Bombay, have performed their lecturing duties satisfactorily, and shown considerable skill in adapting the knowledge of their special subjects as acquired in medical study to veterinary requirements. It is much to be desired that these officers be placed in a position to develope their subjects into specialties in each case, and I am convinced that to this end they should have their interests more closely bound up with the success of their teaching and the progress of the College than hitherto. The College Committee has under consideration this matter for report to Government.

Farrier Major Stroud, Instructor in Practical Shoeing, joined for duty in November, and has proved of great assistance to me in the Hospital. His functions as instructor in practical shoeing would not have begun until some third year's students became available, but I am well assured of his ability to perform all the duties of his post, so I regret that the College has lost his services, as he found that the emoluments here are considerably below those of his army rank.

6. When notices appeared in the Government Gazettes and in the newspapers concerning the College applications for admission as students began to come in rapidly, and it was soon evident that the College, as opening up a new profession to educated natives of India, would receive a considerable amount of public support. Very many of the applications were for the free studentships established by Government, and until these had been filled, many applicants showed reluctance to pay fees. However, the number of students ultimately willing to pay for their professional education is gratifying. The students enrolled during the first year of the College are as follows:—

Caste.	Term I.					Term II.					Total.	Remarks.
	Paying			Free.		Paying.			Free.			
	Private.	Native States, &c.	Private Free.	Government.	Municipal.	Private.	Native States, &c.	Private Free.	Government.	Municipal.		
Pársi	16**	...	1	7*	3*	1	...	...	...	...	28	Each star* represents a student who has resigned or ceased to attend; five in all.
Hindu	8	8	1	3	...	2	5	...	...	...	27	
Mahomedan ...	...	4	...	1*	...	...	...	...	...	...	5	
Jew	...	...	...	1	...	...	...	...	...	...	1	
Portuguese ...	2	...	...	...	...	2	...	1	...	...	5	
European and Eurasian.	1	...	...	...	...	2	...	...	...	...	3	
Other	...	...	...	...	...	...	...	...	...	...	...	
Total ...	27	12	2	12	3	7	5	1	...	...	69	In all all 64 students in attendance to date.

The Pársi element, it will be observed, is very strong on our benches, and this affords me much gratification, for I find that the business-like habits and steadiness of purpose of the Pársi is frequently associated with considerable aptitude for the handling of animals and appreciation of their requirements in health and disease. I look forward to our being able to turn out some very good Pársi graduates.

The zeal and application of the Hindus as veterinary students deserves commendation. They show a little tendency to book-work rather than practical studies, and the Staff has endeavoured to counteract this. I should like to see more Mahomedan applicants. It will be observed that all of this caste have been sent up by the Native States, or otherwise as non-paying students. Mahomedans, as among the best horsemen in India, should make good veterinary students: some of the few students of this caste have worked very well.

The one Jewish and several Portuguese students, also those of the European and Eurasian section, have made good progress, perhaps more marked in practical work than in theory. It is this section, only, of our students which has some knowledge of domesticated animals before coming to the College and, of course, it is thereby at a great advantage. If I be permitted to generalise from my teaching experience in Great Britain and India, the English student shows a decided practical aptitude, but a distaste for pure theory; whereas the native of India shows a decided inclination towards theory and literary work. From this it must be deduced that the studies at the Bombay Veterinary College must be essentially practical in every possible respect. There is, especially, one *practical* matter to which I wish to draw attention—our need for a riding school on the premises; for it will certainly not do for us to turn out veterinary practitioners who have never been on horseback! I am submitting my proposals in this matter through the Committee to Government.

7. The subject of preliminary education demands careful consideration. The future status of our graduates will depend on their general education to a degree second only to their professional knowledge and practical abilities. There can be no doubt that it would be an advantage if only matriculates were admitted, in so far as results are concerned, and even some of the matriculates gain familiar acquaintance with colloquial English only after entering the College. Students from the outlying districts are those most likely to have practical acquaintance with animals prior to entering the College; but they, also, are the ones least familiar with English, and most deficient in general education. The minimum limit of general education of applicants has been fixed at the 6th Standard, but all non-matriculates are, under the Rules and Regulations, to pass such educational test as satisfies the Superintendent that they are capable of following the course of instruction. If in the future, as I consider very desirable, our College be affiliated with the University of Bombay, the time will have arrived when admission may be refused to non-matriculates; I am decidedly of opinion that at present such a measure would be premature: it would tie the hands of Native States and Provinces sending up students, and would practically exclude certain races from among whom it is desirable representatives should be sent to the College, notably Mahomedans and Maráthás.

8. As our College may to an extent be deemed the first outcome of the movement in favour of technical education, and as it is the first which has been started in India with a view to the educating of Natives for independent charge as veterinary practitioners, I may be permitted here to briefly comment on the reasons which have induced young men to enter our College and the hopes they entertain in doing so. I am sorry to say that *very few have entered through any special liking* for either their future profession or for domesticated animals*, but almost all because *they consider the profession will give fair prospects of employment*, especially under Government. They constantly enquire what veterinary service, if any, Government intends to establish, and the value of appointments in it. Many have entered *with a view to obtaining the free professional education* placed at their disposal in the form of Government and Municipality free studentships, and for these there has been considerable competition, rendering selection rather difficult. The principles adopted in that selection have been to make sure, by a certificate from some responsible officer (especially a Civil Servant of the native place of the applicant), that the candidate is a suitable person and not in a

* I am glad to say the majority of the students after entry soon show such a liking, and become keen and apt at their work.

position to pay the College fees, to give men from outlying districts the preference over Bombay applicants, and to select those with the best general education. The Agricultural Societies of Poona and Nadiád were each given the privilege of nomination of one of the free students: the former sent up a Hindu who is doing well; the latter a Mahomedan who never settled to his work properly, and at length tendered his resignation. The Bombay Municipility, I understand, tried to secure three suitable candidates of different castes, but, finally, had to send up three Párs is.

The fact that non-matriculates are admitted at our College has attracted many students, often very excellent and suitable young men. Another inducement is *the fact of our course extending over only three years*, whereas the medical occupies five. Our Bombay students, especially, are drawn from the same class as those of the Grant Medical College, some of them having brothers or other immediate relations in the medical profession, and a few have studied in the Grant College, but have entered our institution induced probably by the prospect of less severe or less prolonged studies. Several medical men applied for admission, but, on finding they would have to study for two years before graduation, withdrew their names. The Central Provinces' Government is trying the interesting experiment of educating qualified hospital assistants as veterinary practitioners. Under our regulations they are excused each one year of study on account of their previous medical knowledge, they constitute the nucleus of a second year's class, and the two men sent up have as such, since Christmas last, been receiving the prescribed second year's instructions,—several of the College Staff also attending the lectures on veterinary subjects as delivered to them.

The number of students enrolled by no means represents the total number of applicants. Some one hundred and fifty have entered into correspondence with the Superintendent, and either not turned up, appeared for the entrance examination and then retired, attended for a short time and decided not to continue their studies, or obtained some employment more likely to be immediately profitable to them. It has been deemed judicious to in no way whatever exercise any pressure on candidates; so they have always been given ample time, before paying fees and being enrolled, to thoroughly understand the nature of the work they are about to undertake. In the future, when veterinary practitioners and students are available to give evidence of what veterinary work really is and comprises, it will be advisable to enforce entrance at the commencement of the teaching year, and to require that a small portion of the first half-year's fees be paid before candidates are submitted to the entrance test, as a fee to prevent unnecessary labour on the part of the examiners; but such measures would, as yet, be premature.

Some students give as their reason for having entered the College that *it is something new, and so that they can reasonably anticipate obtaining employment after graduation*, and all have proved keen to be among the first batch of graduates. This tends to prove that outlets for the energies of educated natives are needed and the want felt, and must prove an encouragement for all measures tending in this direction, and from this point of view justify the establishment of the College.

A few students have joined in *the hope that the Bombay Veterinary College will be affiliated with the Royal College of Veterinary Surgeons of the United Kingdom*, and its diploma recognised as a "Colonial" one, exempting its holder from two years of professional study in Great Britain for the Royal College of Veterinary Surgeons' diploma. Under sanction of the College Committee, I have addressed the Royal College of Veterinary Surgeons in London, with a view to securing this recognition of the status of our College.

Considering that students on entering have had no knowledge of a veterinary profession to attract them (since the Native veterinary professional body is entirely a thing of the future, there being as yet not a single diplomaed veterinary practitioner), also that no promise of Government service for successful graduates could be given, but simply the probability of Government requiring competent practitioners for cattle-disease repression pointed out, it is remarkable that so many candidates presented themselves, and that so many have been able to withstand the weeding process of unexpected severity of work. The general impression was that, as being the first batch of students, they would have easier work than those who enter hereafter; whereas they really have had greater difficulties to contend with than will those of future years, as the lecturers are new to their duties, the College and Hospital work has been in process of develop-

ment, the teaching appliances are less numerous and complete than they will be hereafter, and (especially) they have not had the valuable influence of senior classes of students to assist them in their earlier studies.

9. Order and discipline have been satisfactorily maintained, and only one case needing severe punishment occurred.

10. The following Native States' and Provinces' students have been sent up to the College:—

One each from Navánagar, Junágad, Sávantvádi, and Cutch.

Four by the Government of H. H. the Gáikwár of Baroda.

Two by the Kolhápur Darbár.

Five by His Highness the Nizám from the Berárs.

Two by the Government of the Central Provinces.

(To these may be added one more promised from the Berárs and one from the Sángli State, making 19 in all.)

It is to be hoped that other Native States will follow the example thus given, with a view to their ultimately having competent veterinarians: very few have any veterinary organization in their State stables, cavalry, artillery, and breeding studs, although their stallions, troop horses, and brood mares represent a considerable sum of money; and, in addition, the medical needs of State cattle of various kinds must be considered. When there is an organization for cattle-disease repression in this Presidency every non-inspected State will constitute a focus of disease, and so a constant source of danger; it is most imperative, therefore, that progress in this respect should take place simultaneously in the States and the Presidency. The recent loyal action on the part of the States in supplying transport animals and volunteering the service of their troops for Imperial purposes, as constituting them to some extent a reserve of transport for military purposes, gives Government a direct interest in the preservation of their cattle in health and efficiency.

A salutri of the transport division of the Commissariat Department at Mhow has been permitted to attend for clinical work in the Hospital; in sanctioning his attendance I took the opportunity of drawing the attention of the Commissary General to the fact that, in future, the employment of veterinary graduates would be of advantage to the transport service, as my experience and that of every other veterinary officer in this country tends to show that the present salutris are seldom able to perform their duties in anything like a satisfactory manner.

11. The following aids to teaching have been organized during the past year:—

(a) The LIBRARY now contains 261 works, as follows:—

No.	Nature of Class.	Purchase.	Presentations.	Exchanges.	Total.	Remarks.
I	Chemistry	9	2	...	11	
II	Botany	6	3	...	9	
III	Materia Medica, Pharmacy, &c...	11	7	...	18	
IV	Veterinary Surgery and Medicine	49	29	10	88	
V	Diseases and Management of Dogs.	...	...	...	...	
VI	Anatomy and Zoology	17	15	...	32	
VII	Physiology	5	2	...	7	
VIII	Sanitary Science, &c.	5	6	...	11	
IX	Animal Management	16	6	...	22	
X	Journals and Reports	2	7	...	9	
XI	Government Reports	...	29	...	29	
XII	Miscellaneous	13	12	...	25	
	Total ...	133	118	10	261	

It is hoped that in course of time a first class veterinary library for reference and research may be established in this College, not only for use by the students but also for reference by veterinary practitioners when in Bombay, and

for supply of information on such matters relating to domesticated animals as Government may call for from time to time. The thanks of the Committee have been conveyed to donors of books. The Instructor in practical shoeing has been officiating as Librarian.

The MUSEUM contains about 60 specimens, many of much value. They are illustrative of the several branches of study at the College, and been supplied by the Superintendent, Assistant Superintendent, and members of the veterinary profession; a number of them have been obtained from fatal cases in the Hospital. Thanks of the Committee have been conveyed to the donors, and it is gratifying that some of the best specimens have been sent from so far off as Calcutta. Under the regulations, the lecturers will, in future, be required to assist in the organization of the museum in their respective departments (but I hope on somewhat a different footing from the present unsatisfactory one, and that Government will be pleased to adopt my suggestion of making provision for a small salary for a Joint Librarian and Museum Curator). I look forward to this the more anxiously, because I consider our museum one of the most valuable teaching means at our disposal, and I look confidently towards its considerable expansion. Accordingly, I have requested the Committee to ask Government to give us further accommodation for it, by throwing out a porch in front of the College and extending the museum above it, thereby more than doubling our present museum space. When our skeletons are mounted, we shall be much cramped for room in the small part of the building at present devoted to specimens; and when our students begin to know a fair amount about veterinary work we may expect from them large additions to our museum, and that it will become a really good one.

The FORGE and its SUBSIDIARY BUILDINGS were completed in the past year, and a portion of the grant for furniture devoted to their equipment: thus they can be got to work shortly. It is proposed to carry out *only* shoeing of a special nature, of infirmary patients, and for educational purposes, in order that there may be no serious competition with local firms who shoe "on European principles." The course for practical shoeing begins only in the third year of study, so no students have as yet learned shoeing.

The DISSECTING ROOM has been completed and opened with sufficient furniture for the small second year's class, which has been under instruction since Christmas. I hope to complete its equipment by June next, when a fair-sized class will be required to commence the study of practical anatomy. I have under consideration the necessary organization of work in this department, especially as regards the minimum cost of supply of "subjects," of which our Hospital has not hitherto constituted a sufficient or reliable source.

The POST-MORTEM ROOM has proved a most valuable addition to our clinical resources, especially in examination of carcases as to the nature of fatal diseases, such as rinderpest and rabies, also as to the presence or absence of poison and in enquiries tending to advance our pathological knowledge.

The BOTANICAL GARDEN has had to stand over until the ground becomes available. In the meanwhile the scheme for it is being elaborated by the Chemical Lecturer and myself.

The want of a CHEMICAL LABORATORY for practical instruction in this branch and for analysis is much felt.

A valuable *equipment of surgical instruments* has been provided by Government, and *medicines* have been liberally supplied by the Society for the Prevention of Cruelty to Animals. Much good teaching material has been supplied by the Hospital and utilized in practical instruction of the class.

The want of a PRACTICAL EXAMINATION SHED AND OPERATING ROOM has been much felt, and is in course of representation to Government; it is most necessary for the protection of the health of the clinical officers and of the students both during the hot weather and the rains. The Trustees of the Bombay Pinjrápole have, on my request, permitted me to take small classes round their establishment for practical instruction; this I consider a most valuable concession.

12. PRIZES varying in value and suited to the requirements of the students have been offered, as follows:—

(*a*) * Free studentship for one year open to all students, for proficiency in the handling of domesticated animals (Class A).

(*b*) The Text Books for Class C open to all paying students of Class B, for the best examination in practical anatomy.

(*c*) A pocket case of veterinary instruments and a clinical thermometer for the first and second students in Class B examination.

(*d*) A silver medal for clinical records (Class C).

(*e*) Rs. 32 worth of professional books for the best essay on a specified professional subject; this year "The Cattle of Gujarát" (several essays have been sent in)—Class C.

(*f*) A clinical thermometer for *post-mortem* records—Class C.

(*c*, *d*, *e* and *f* are this year to be open to *all* students).

These prizes are the outcome of private liberality. Several gentlemen have promised further support in this respect, and valuable prizes are anticipated from the Bombay Society for the Prevention of Cruelty to Animals.

The Government scholarships are to be awarded to deserving students on the results of the professional examinations; none, therefore, have as yet been allotted.

Under the rules and regulations, certificates will be awarded to such students as are appointed to and perform the duties of clinical clerk, lecturer's assistant, or prosector, as also to such as attend and pass the examinations of special courses which from time to time will be delivered. Of these "special courses" of lectures some of the subjects have never anywhere been previously dealt with: thus "Diseases of the Elephant," "Diseases of the Camel," and the "Selection and Purchase of Transport Animals" should prove of interest to the public and advance our knowledge of veterinary subjects of special *Indian* importance and of the highest practical value. The general public will be admitted to these courses as "occasional students" on the payment of specified fees.

13. On the representation of the Superintendent, Government was pleased in Resolution No. 5572, Revenue Department, dated 5th August 1886, to place the administration of the affairs of the College in the hands of a Committee of Management composed of a number of gentlemen who, from their official positions or private inclinations, were considered likely to advance the interests of the institution. In all, four meetings of the Committee were held in eight months, at which various important matters were considered, as reported by me from time to time to Government. Among these the election of free students and drawing up of rules and regulations were the principal; on the latter having been approved by Government, the institution was enabled to work on a definite basis, upon which improvements may be grafted from time to time as experience of the working of the College suggests. It gives me much pleasure to testify to my indebtedness to the members of the Committee for guidance and support where my limited local and official experience proved at fault; on every occasion when a meeting was announced a quorum was obtained.

14. The scheme for examinations has been prepared with a view to submitting the students to tests of progress by professional gentlemen unconnected otherwise with the College, supplemented by a proportion of teachers. The three professional examinations and the corresponding courses of study have been arranged somewhat on the model of those of the Royal College of Veterinary Surgeons, but with some minor differences intended to ensure special *veterinary* studies from the earliest stage of the career of each candidate as a student: thus for his first examination he has to study the handling of domesticated animals and the practice of dispensing; for the second he has to learn a little about the most common diseases; and for the third he has to show sufficiently full knowledge of surgery, medicine, and animal management to entitle him to a diploma as a "Graduate of the Bombay Veterinary College" and, it is hoped, to enable him to perform duties as an independent veterinary practitioner, including the suppression of cattle-disease in the districts.

15. Forty-six students entered their names for the first Professional Examination in April 1887; of these 3 have been disqualified for imperfect attendance and at the preliminary test, thus 43 (out of 56 possible) are eligible to appear before the Board of Examiners.

16. The total amount received as students' fees in 1886-87 was Rs. 1,885: some fees have yet to be collected, especially from the Native States.

17. Of extra collegiate work performed by officers of the College during the past year:—

The Superintendent has edited the quarterly Journal of Veterinary Science in India, thus the leading organ of the veterinary profession in India now emanates from the College; he has brought out the second edition of his Diseases of the Ox (Longmans & Co.), and is seeing through the press a work on Diseases of the Dog (Longmans).

He attended the Chinchli Agricultural Show on behalf of the Kolhápur State (by permission of Government), and received cordial thanks through the Political Agent for his services as judge and professional adviser in the horse classes.

He was reluctantly compelled, by pressure of work, to decline a most pressing invitation to the Nadiád Agricultural Exhibition.

Under orders from Government, Mr. D. N. Vakil, who had studied at the Army Veterinary School, Poona, was deputed for the investigation of an outbreak of rinderpest and other disorders of cattle in North Kánára, and afterwards in Dhárwár, and performed his duties satisfactorily.

An outbreak of cattle-disease was reported from Thána and the Collector was advised as to its repression. A slight outbreak of rinderpest among cattle in Bombay, Government transport bullocks, was also reported on. The subject of glanders has been dealt with by Government, and the Superintendent has sat as member of a Committee for framing rules under the Glanders Act for Bombay City. The prevalence of this serious disorder in Bombay Island has been clearly exemplified in hospital cases brought by the Police for diagnosis.

The Superintendent has submitted to Government reports on the question of anthrax vaccination on the Pasteurean system as regards its introduction into India,

18. In conclusion, I may mention that it has, during the past year, been found that the Bengal Veterinary College, which was to have been established on the same lines as our College, had to be postponed *sine die* on account of expense; it is, therefore, the more satisfactory that this difficulty has been overcome in Bombay,—a result which is attributable to recognition by Government of the urgent necessity for some scientific knowledge of diseases of cattle and horses by natives of India, to the liberality of Sir Dinshaw Manockjee Petit, and to the energetic pursuit of its objects by the Bombay Society for the Prevention of Cruelty to Animals. The proposed Calcutta school had been under consideration some time before that of Bombay was actually dealt with. In the Empire of India there are only three other veterinary teaching institutions: one at Lahore, essentially for education of veterinary assistants in the vernacular; another at Rangoon for education of Burman boys in diseases of cattle (only organized temporarily); and a third at Poona, on a limited scale, for army purposes. Thus the Bombay Veterinary College is the only institution of its kind in India, *i. e.*, for education of natives as veterinary practitioners for independent charge and in the English language by entirely European methods. Accordingly, it will probably be expected, in the immediate future, to supply fully educated veterinary practitioners for all parts of India to fill the gap now existing between the few European graduates posted to civil duties and the numerous but imperfectly educated salutris, thus occupying a position in the veterinary profession similar to that of assistant surgeons in the medical organization of this Presidency. It must be remembered that, in the future, Lahore may commence to give higher veterinary education, and colleges may be opened in Madras and Calcutta; but to Bombay belongs the credit of taking the initiative in this movement.

I have the honour to be,

Sir,

Your most obedient Servant,

JOHN HENRY STEEL, V.S.,

Superintendent, Bombay Veterinary College and Hospital.

APPENDIX A.

FIRST ANNUAL REPORT OF THE BÁI SAKARBÁI DINSHAW PETIT HOSPITAL FOR ANIMALS.

No. 103 of 1887.

Bombay Veterinary College and Hospital, Parel,
Dated 10th February 1887.

From

J. H. STEEL, V.S.,

Superintendent, Bombay Veterinary College;

To

The SECRETARY,

Society for the Prevention of Cruelty to Animals,

Bombay.

Sir,

I have the honour to submit, for information of the Hospital Committee of the Society for the Prevention of Cruelty to Animals, the following Report of the working of the Hospital for the half year ending 31st December 1886. The Hospital had been open for thirteen months on that date, but I consider it will be best to take advantage of my having been here six months in veterinary charge and to date our half-yearly reports in the future from 1st July and 1st January, and to bring this before the Society as its First Yearly Hospital Report.

2. On the officers of the College relieving Mr. J. F. Lalee of veterinary charge of your Hospital, 51 animals remained under treatment, *i. e.*, 4 horses, 46 bullocks, and 1 cow. Mr. Lallee's returns were presented at the first meeting of the Hospital Committee in the form of a systematic report drawn up by me from them. In para. 3 of that report I state that since the Hospital was started, 286 head of cattle, 92 horses, 54 dogs, and 14 other animals have been dealt with in the Hospital; representing a total of 446 in 7 months and an average of 63$\frac{5}{7}$ per mensem. The in-patients were:—

First four months (4)	horses	24;	bullocks, cows, and buffaloes	157			
5th to 7th months (3)	„	18;	„	„	84		
Total 7 months	...	...42	...	...	...	...241:	Total 283.
Average per mensem	...	... 6	...	...	...	... 34$\frac{3}{7}$	„ 40$\frac{3}{7}$

During the six months now completed, 282 head of cattle and 80 horses have been admitted as in-patients, and 141 animals of various kinds treated as out-patients; representing a total of 503 patients dealt with in the Hospital in six months, and an average of 83·9 per mensem.

The in-patients averaged 60$\frac{2}{3}$ fresh cases per mensem; of which 13$\frac{2}{3}$ were horses and 47 cattle of various sorts.

Thus the last six months shows an increase of in-patients by 50 per cent.; the number of out-patients amounting to about the same, except that now the out-patients are almost all animals under treatment, whereas in the first seven months they were largely composed of incurables brought for opinion before despatch to the Pinjrápole.

The following is a *précis* of the Monthly Reports :—

In-patients.

Items.	July.	August.	September.	October.	November.	December.	Monthly Average.
Number of in-patients	101	102	120	163	166	160	135⅔
Fresh cases :—Total	50	42	56	81	67	68	60¾
„ Horses	9	18	10	15	17	11	13⅔
„ Bullocks	33	24	45	65	50	55	45⅔
„ Cows	...	...	1	1	...	1	½
„ Buffaloes	8	...	...	...	...	1	1½
Deaths	10	1	3	6	3	3	4½
Percentage fatality	10	1	2·5	3·7	1·81	1·84	3·5
Number discharged	41	38	38	64	74	72	54½
Average days under treatment ...	32·5	42·5	49	35	30	37	37⅓
Horses	23·2	22·6	43·5	35	20·11	21	27⅓
Bullocks	42·6	62·5	54·6	35·1	39	52·5	47·5
Number of cases...	111	120	146	189	198	188	158⅓
Animals remaining	60	64	82	99	92	88	81

Out-patients.

Items.	July.	August.	September.	October.	November.	December.	Monthly Average.
Number of out-patients...	10	18	25	28	32	28	23½
Visits	27	56	57	61	68	72	57
Daily average	0·87	1·80	1·84	1·97	2·22	2·32	1·84

It will be observed that there has been a steady increase in the number of in-patients, of admissions and of discharges, as also in the total number of cases treated.

The number of patients and the daily average in the out-patient department show a steady rise.

The deaths were numerous only in July, when a great number of buffaloes badly burned in a fire died shortly after admission and considerably raised the average.

Constant efforts have been made to lessen the average duration of treatment, and have resulted in a certain amount of success, not so much as may be anticipated in the future working of the Hospital, as shall be elsewhere explained. At present the average cost to hack vehicle owners while their animals are incapacitated is per horse Rs. 10-6-0, per bullock Rs. 8-14-6 ; this represents keep of the animals, medicines, and surgical care. Although it is extremely moderate, we anticipate considerable reduction in the future, for it must be remembered that while the animal is in the Hospital he is bringing in absolutely no money to his owner.

It must be remarked that, frequently, animals when admitted suffer simultaneously from several affections needing surgical and medical attention: many, indeed, being such wrecks that the utmost possible result of our efforts is fitting them for a few months' more labour. Again, we often get chronic cases which have resisted efforts for their cure sometimes for a year or more; also many of our cases result from malpractice by empirics. The distance of the Institution from the Bombay City and the Fort operates unfavourably as regards practice, as had been anticipated by the Committee and the Society, for severe cases are too ill to bring such a distance and it is considered not worth while to bring slight

cases. Thus our practice is necessarily somewhat restricted, especially as regards horses; it is, therefore, with some satisfaction that we point to the number of in-patients as averaging 135⅔ per mensem.

Deaths *will* happen sometimes in spite of all our efforts, and I trust that in time we shall be able to remit all expenses incurred in all cases of animals belonging to hack ghári and cart owners which are discharged as "died" or "incurable." It is these very cases, however, which most exact the time and care of the Staff and servants, and throw most strain on the resources of the Institution, so difficulties lie in our way in this matter.

In deference to the religious feelings of many supporters of the Society no animals are destroyed in the Hospital: incurable cases are handed over to the owners with a request that they be taken to the Bombay Pinjrápole, care being taken always to remove all possible sources of suffering before they are sent there.

3. The following are the principles on which the Hospital has been worked hitherto:—

(1) It is desired to supplement the veterinary resources of Bombay:—

(*a*) by affording veterinary care and treatment for cases of exceptional severity and obstinacy, or for animals of very high value.

(*b*) also it is hoped to place at the disposal of the public the advice of the officers specially selected by Government for veterinary charge of the College and Hospital.

(*c*) by co-operating with the Police in repression of communicable diseases, such as glanders, rinderpest, and foot and mouth disease.

(*d*) by advising Government and performing for the authorities any special duties required of the Veterinary Staff in Bombay.

(2) To *especially* afford veterinary aid to animals used in vehicles plying for hire in Bombay at as low a rate of cost *for keep only* as the resources of the Institution will permit.

Thus a ghári owner or a cart owner can have his animal kept and treated in the Hospital for less than it would cost to keep him idle at home.

(3) To avoid competition with the qualified practitioners of Bombay by charging higher fees for all paying patients, while guaranteeing to owners the full benefits of the exceptional equipment and management of the Institution. In fact, all owners able to pay must understand that we wish to give them the best possible advice and treatment, but that they must pay accordingly. They will have the satisfaction of knowing that all the Hospital fees go towards support of the Institution, and are for expansion of it as a charity, the officers being forbidden private veterinary practice.

It is satisfactory to report that the local practitioners have shown lively interest in the progress of the College and Hospital, and that we owe some instructive cases and specimens to their kindness. The College officers consult with local qualified practitioners who wish it on their cases without fee, but can be called in for consultation on the wish of an owner at the full consulting fee.

(4) To afford skilled veterinary advice to the Society for the Prevention of Cruelty to Animals, and forward its efforts in every way, by precept and example to repress cruelty and avoid unnecessary infliction of pain. Thus no twitch is to be seen in our horse wards, our cattle are persuaded to move more rapidly by less painful methods than tail-screwing, and the blessings of chloroform are extended to suffering animals.

(5) To supply clinical facilities for study to the students of the Bombay Veterinary College.

The results of the Hospital in this respect have been most gratifying, the average number of cases for treatment being 183 per mensem, and the disorders ranging through from 12 to 14 different classes. The senior students are posted to the several wards and departments as Clinical Clerks, and carefully carry out

all treatment under the officers of the College and with assistance of the junior students as Dressers. Thus students become trained for the supply of *practical* veterinarians to the country in the future, while the Hospital is saved the expense of trained dressers.

4. The following are the principal changes which have been made in the Hospital during the last six months :—

(*a*) The Rules and Regulations have been drawn up and submitted to the Committee.

(*b*) A system of returns, reports, and records has been established.

(*c*) A temporary pharmacy has been organized in the College building.

(*d*) A supply of surgical instruments of considerable value has been obtained from Government.

(*e*) The roads and drainage of the Hospital have been improved.

(*f*) Out-door standings for bullocks, an isolation shed, and an admission ward have been prepared by the Society's Manager.

(*g*) Government has built a forge and shoeing shed, which will be available for Hospital as well as for educational purposes.

(*h*) An Out-patient Department has been organized.

(*i*) Numerous Hospital appliances, as mentioned in the margin, have been procured and brought into use, some having been invented to meet the special requirements of this Hospital.

1. Shoeing tools.
2. Neck-protectors.
3. Hump-protectors.
4. Cradles.
5. Bandages.
6. Poulticing boots (horses & bullocks).
7. Slings.
8. Buskins.
9. Medicine boxes.
10. Eye board.
11. Whip.
12. Irrigator.

(*j*) The Hospital Committee of the Society has been elected, and has controlled the operations of the Institution.

5. The following works are in progress :—

(*a*) Preparation of a grass paddock.

(*b*) Building of a forage store.

(*c*) Building of a grain shed.

(*d*) Building of an office for the Manager.

(*e*) Building of Offices for Secretary and Committee.

(*f*) Fixture of crow-excluders.

The College Committee has under consideration a request to Government for residences for some students performing Hospital duties and for an operating shed available for practical examinations and instruction.

6. The following are desiderata, and their attainment is under consideration :—

(*a*) A dog ward for paying patients and severe cases only.

(*b*) An operating shed *(vide supra)* and Clinical Clerks' quarters.

(*c*) Special loose boxes for severe cases in cattle.

(*d*) A shed for cows and a dark box for eye cases.

(*e*) A lucerne garden.

(*f*) A cinerator.

(*g*) An ambulance; also refuse cart.

(*h*) An exercising ground.

(*i*) The following special servants for the Hospital:—

A nalband and a clerk (to perform also the duties of money-collector).

(*j*) A vapour bath and boiler house.

(*k*) Uniform for the Hospital servants.

(*l*) A permanent pharmacy and drug store.

(*m*) A gram-crusher and a chaff-cutter: hoof-scrapers, pickers, movable mangers, &c.

(*n*) The Health Officer has been addressed with a view to improvement of the sanitary surroundings, specially the cleansing of the lane to west of the Hospital.

7. The finances of the Hospital are entirely managed by the Secretary to the Society, and I have reason to believe with a view to the strictest economy compatible with efficiency. An organized system of supply of medicines, appliances, petty requirements, and of meeting minor repairs, &c., is in course of elaboration.

An application has been made to Government, on resolution of the College Committee, that all proceeds of College practice (as distinguished from educational fees) be placed at the disposal of the Superintendent for expenditure on Hospital requirements.

Government was asked to supply the medicines required in the Hospital, but objected on financial grounds. It is now proposed that Government be asked to permit supply at cost price from Medical Store on payment indent. Roughly speaking, the expense of medicines for three months is Rs. 400.

8. The Secretary of the Society has on all occasions most cordially co-operated with me in forwarding the interests of the Hospital.

The Manager has been zealous and efficient in performance of his duties, especially in executing minor improvements and in collecting outstandings. The latter duty is often onerous. In some cases after complete cure of patients the owners allow them to stand for a very long time in Hospital without removal, either because the owners are away from Bombay, or for other reasons. Also in incurable or fatal cases the owners object to cost of keep of the animals while in Hospital. There are some such cases which humainty forbids us to send away to the Pinjrápole; but when a case is manifestly incurable the owner is advised to take it and it is not admitted into Hospital. Of course there are some cases which are condemned as hopeless only after the resources of surgery and medicine have proved of no avail.

At times both Manager and Assistant Manager have been absent on collecting work, and the admission of patients delayed. This difficulty could best be met by appointing to serve under the Manager a responsible man as a clerk and collector. I have had to request removal of the Assistant Manager on account of irregularities and non-performance of his Hospital duties. The other servants of the Hospital though generally quite untrained on joining, have settled down to their work, and perform it efficiently. I should like a suit of simple uniform for them to wear on official inspections of the Institution and other special occasions.

The Assistant Superintendent and Farrier of the College have rendered me valuable and efficient assistance in the Hospital; as also have the Clinical Clerks.

9. The general public, veterinary officers, and Government officials have, by frequent visits, testified to the interest they take in the progress of the Hospital. The public press has given us valued support.

10. The working of the Hospital has thrown much light on the common diseases and accidents of draught cattle in Bombay. Constant clinical lectures on the various Hospital cases have informed the students as to these diseases and accidents, and it is hoped much good will be thereby effected. The principal conditions (as to frequency) treated among cattle in the Hospital were sore neck (of some twelve different varieties), crushed foot, broken horns, sore hump,

punctured foot, fractures of the shoulder and quarter, and various lamenesses. The most interesting cases have been recorded in the Journal of Veterinary Science in India, which is edited by the Superintendent.

An enquiry into the best means of prevention of sore neck is being organized by the Committee, under the professional advice of the Superintendent, who is collecting necessary information on the subject.

Some curious cases of prejudice against the Hospital and misrepresentation as to its aims have been detected and are being counteracted. Among them we may enumerate

1. An idea that the Hospital is experimental.
2. Prejudice in favour of empirical treatment and charms, &c.
3. Impressions that the officers don't know their work.
4. The idea that surely all the benefits of the Hospital are not given without some ulterior, though not evident, object.
5. The impression that life is taken at the Hospital.
6. The impression that the Hospital is a sort of police establishment.
7. The idea that the Hospital is too grand a place for cattle and horses of poor people.

But these will, it is confidently predicted, in time be thoroughly dispelled by the reputation the Hospital is getting for disinterested charity and care of its patients.

I have the honour to be,

Sir,

Your most obedient servant,

JOHN H. STEEL, V. S.,

Superintendent,

Bombay Veterinary College and Hospital.

DONATIONS

TO THE

BÁI SAKARBÁI DINSHAW PETIT HOSPITAL FOR ANIMALS.

1885.

	Rs.	a.	p.
Jumnadass Geegabhoy, Esq.	10	0	0
A. K. Shepherd, Esq.	50	0	0
Furdoonjee Byramjee Murzban, Esq.	5	0	0
Pestonjee Dinshaw Sopariwalla, Esq.	2	0	0
Nusserwanjee Dadabhoy, Esq.	15	0	0
Pestonjee Dadabhoy Plan-maker, Esq.	10	0	0
Ardeshir Nesserwanjee Mody, Esq., and others	50	0	0
Framjee Hormusjee Commissariatwala, Esq.	25	0	0
Nusserwanjee D. Mirza, Esq.	5	0	0
Jamsetjee Dinshawjee Commissariatwala, Esq.	10	0	0
Eduljee Bomonjee Morris, Esq.	15	0	0
Nusserwanjee Bomanjee Tata, Esq.	5	0	0
Jehanghir Merwanjee Vakil, Esq.	15	0	0
Bai Motibai Pestonjee Mehta	5	0	0
Muncherjee Ardeshir Dustoor, Esq.	10	0	0
Bai Ruttonbai Cowasjee Bhimjibhoy	50	0	0
His Highness the Ráo of Cutch	250	0	0
Bomonjee Hormusjee General, Esq.	10	0	0
Nowrojee Pestonjee Toddywala, Esq.	20	0	0
Eduljee Merwanjee Dubash, Esq., and others	20	0	0
Nusserwanjee Dadabhoy Nowsariwala, Esq., and others	10	0	0
Pestonjee Dadabhoy Nowsariwala, Esq., and others	10	0	0
Eduljee Framjee Albless, Esq.	15	0	0
	617	0	0

1886.

	Rs.	a.	p.
Nuthuram Joravurmul, Esq.	250	0	0
F. Y. Smith, Esq.	25	0	0
Fakirjee Maneckjee Damania, Esq.	10	0	0
Bai Mithibai	3	0	0
Sorabjee Shapurjee Bangalee, Esq., C.I.E.	100	0	0
Dinshaw Nusserwanjee, Esq.	1	0	0
Messrs. Damjee Megjee & Co.	10	0	0
Bharmull Bhojraj, Esq.	10	0	0
Nanabhoy Bomonshaw, Esq.	10	0	0
Gokuldass Jugmohondass, Esq.	25	0	0
Dinshaw Maneckjee Bharucha, Esq.	5	0	0
Eduljee Pestonjee Bharucha, Esq.	5	0	0
Messrs. Mooljee Purmanand & Co.	9	9	6
Premchand Nehalchand, Esq.	3	14	0
K. S. Nariman, Esq.	25	0	0
Bai Hirabai	15	0	0
Rustomjee Bejanjee Kapudia, Esq.	10	0	0
Bai Dinbai	25	0	0
	542	7	6

Bombay Veterinary College: Annual Report of the —— for 1886-87.

No. 5540.

REVENUE DEPARTMENT.

Bombay Castle, 20th August 1887.

Letter from the Superintendent, Bombay Veterinary College, No. 267, dated 27th April 1887—Submitting the first annual report of the College; and appending a copy of his report of the Bái Sákarbái Dinsha Petit Hospital for Animals for the year 1886.

RESOLUTION.—In this interesting report Mr. Steel, after describing the arrangements preliminary to the opening of the Bombay Veterinary College on 2nd August 1886, refers in some detail to the reasons which he considers have induced students to join it, and gives a concise account of the progress made up to the 31st March 1887. He has appended a copy of his report for 1886 on the Bái Sákarbái Dinsha Petit Hospital for Animals on which the College depends for clinical instruction. It must be a source of gratification to the charitable founder of this institution to note that in the first year after its foundation, the number of cases sent for treatment has reached an average of 183 per mensem.

2. A large number of applications for admission to the College were originally received, but the number of students eventually admitted was 69, of whom 5 subsequently resigned or ceased to attend. Twenty-eight were Pársis and 27 Hindus, the rest being Mahomedans, Portuguese, Jews, Europeans and Eurasians. Fifteen students (almost all Hindus) were sent to the College by Native States and 2 by the Administration of the Central Provinces. The progress made by the students appears to have been satisfactory, but their tendency to prefer book work to practical studies is remarked by the Superintendent who has endeavoured to counteract it. Discipline has been maintained without difficulty.

3. A small library and a museum have already been provided for the College, but the Governor in Council has in Resolution in Revenue Department, No. 4062, dated 4th July 1887, expressed his inability at present to sanction the salary of a proposed joint librarian and museum curator. A forge and a dissecting room have also been completed but the courses for practical shoeing and practical anatomy have not yet been commenced. Mr. Steel's proposals regarding the erection of a practical examination shed and operating room and for extending the museum over a porch in front of the College have been disposed of by Government Resolution, Public Works Department, No. 467-C.W.—1235, dated 11th August 1887.

4. The Committee of Management appointed by Government Resolution No. 5572 of 5th August 1886 held four meetings during the period under report, elected free students, and drew up rules for the administration of the College. It has been arranged to test the progress of the students by an examination at the end of each year's course, and Mr. Steel explains in general terms the subjects of the three examinations to be passed, success in the last of which will qualify a student for a diploma as graduate of the Bombay Veterinary College. An application has been made to the Royal College of Veterinary Surgeons of the United Kingdom with a view to getting this diploma recognized as a "Colonial" one, entitling its holder to exemption from two years of professional study in Great Britain for the R.C.V.S. diploma. Mr. Steel should be asked to convey the thanks of Government to the gentlemen who have offered the prizes detailed in his 12th paragraph.

5. This report contains very little information about the receipts and expenditure of the College; this the Superintendent is requested to supply in future reports. It appears that students' fees amounting to Rs. 1,885 have been

collected, while some fees, especially those due from certain Native States, have not been paid. Mr. Steel has explained the grounds on which he considers that it would be at present premature to exact prepayment of fees on entrance.

6. The reports both on the College and on the Hospital give evidence of the warm interest which Mr. Steel takes in the institutions under his charge, and of his earnest desire to secure practical results. In his references to the aid which may be looked for from the Veterinary College in dealing with cattle-disease, he shows a sound appreciation of the most important function of such institutions in India and his suggestion that the College may prove useful to the Military Department by supplying servants trained in Veterinary Science to the Transport Service seems well worthy of consideration.

7. The value of the extra collegiate work referred to by the Superintendent in the 17th paragraph of his report is fully recognized by Government. Copies of his report, which should be printed, should be forwarded to the Secretary of State and to the Government of India, and copies should also be placed on the Editors' Table. The thanks of Government are also due to the Committee of Management for their exertions.

J. De C. ATKINS,
Under Secretary to Government.

To

The Superintendent, Bombay Veterinary College and Hospital,
The Commissioners of Divisions and in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Political Department of the Secretariat,
The Political Agents, Káthiáwár, Cutch, Kolhápur and Southern Marátha Country and Mahi Kántha,
The Political Superintendents, Pálanpur and Sávantvádi,
The Superintendent, Horse-Breeding Operations,
The Municipal Commissioner for the City of Bombay,
The Accountant General,
The Educational Department of the Secretariat,
The Military Department of the Secretariat,
The Director of Public Instruction,
The Director of Agriculture,
The Secretary to the Society for the Prevention of Cruelty to Animals,
The Editors' Table, Bombay,
The Editors' Table, Poona, *care of* the City Magistrate, Poona,
The Editor and Proprietor, *Dhárwár Vritt*, Dhárwár, for his own use and for circulation to other editors of newspapers in Dhárwár.

} With copies of the report.

The Government of India,
The Secretary of State for India.
} By letter.

No. of 1887.

Copy forwarded for information and guidance to

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

AND OF THE

BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1887-88

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1888.

[Price—Three Annas.]

BOMBAY BRANCH
OF THE
Royal Asiatic Society.
CLASS

REPORT

OF THE

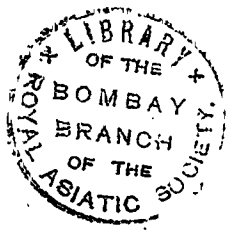
BOMBAY VETERINARY COLLEGE

AND OF THE

BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1887-88

JG.K.37



Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1888.

No. 337 OF 1888.

FROM

J. H. STEEL, V.S.,
Superintendent, Bombay Veterinary College;

To

THE SECRETARY TO GOVERNMENT,
Revenue Department.

Bombay Veterinary College and Hospital,
Parel, dated 25th of May 1888.

SIR,

I have the honour to submit this the Second Annual Report of the Bombay Veterinary College for information of Government. To it I have appended the 1887 Report of the Bái Sáker Bái Dinshaw Petit Hospital for Animals which has been submitted to the Bombay Society for the Prevention of Cruelty to Animals, and will be found to indicate a considerable and satisfactory development of that institution during the past year.

2. At the end of last official year the College consisted of a single class numbering 64, of them 43 being eligible to appear for their First Professional Examination in April. Under the College Rules and Regulations Government appointed a Board consisting of Professor Gray of the Grant Medical College and Veterinary Surgeons Meredith and O'Donel, which commenced to sit on 2nd May 1887 and passed 34 of the candidates—6 in the 1st class, 19 in 2nd class, and 9 in the pass class.

This result was reported to Government and considered satisfactory (Government Resolution, Revenue Department, No. 4625, dated 19th July 1887). A Supplementary Examination was permitted in September 1887, and the following officers sat as the Board on that occasion: Dr. Deshmukh of the Grant Medical College, Veterinary Surgeons (1st Class) Rayment, Grainger, and Veterinary Surgeon Pottinger. This time two candidates appeared for the Second (or Class B) Professional Examination. These were the Hospital Assistants sent up from the Central Provinces, who were excused part of their veterinary studies in consideration of previous professional education; both passed. Seventeen candidates presented themselves for the First Professional Examination, and of them 8 passed as follows:—5 in second class and 3 with special grace. Thus there are now three classes of students in the College—A or *Juniors*, 38; B or *Intermediates*, 40; C or *Seniors*, 2. During the past year instruction has been given to Classes A and B, the Hospital Assistants attending with the latter but receiving extra practical instruction. The results of the Supplementary Examination were not satisfactory enough to encourage repetition annually; it is open to the objections that the candidates are men who have had irregularly arranged courses of instruction in consequence of having entered at irregular times; it limits the available period of study in the short session, and it brings fresh men into the senior classes at the middle period of work. It has the advantage of allowing unsuccessful candidates another chance of passing their examinations after less than a year extra study, but this is useful only in certain cases constituting a small percentage of the rejections. Unless we could give special courses to candidates for the September Supplementary Examination we could hardly anticipate satisfactory results from it, and with the present amount of College work special courses are quite impossible. Therefore, in future, Supplementary Examinations will be resorted to only under very special circumstances. To regulate the classes those students who passed their First Examination in September 1887 are permitted to present themselves for the Second Examination in April 1888, and the two Hospital Assistants will, to their advantage,

be detained for their final examination until April 1889. Thus the classes will be changed only annually in future; it is not yet advisable to exclude entrance of students during the course of the year, but in time no doubt it will be necessary to decide that entrance shall be only in June.

3. Government has under consideration the appointment of a permanent Board of Examiners referred to in my letters No. 515, dated 5th August 1887, and No. 137, dated 9th February 1888. I am of opinion this will prove a very great advantage as facilitating working of the examination machinery so long as we have to maintain a special examining body. I trust in the not distant future the Bombay University will show the other Universities of the British Empire an example by confirming degrees in veterinary surgery and medicine to the promotion of science and the advancement of the veterinary profession. With all due respect to the examiners who have worked here during the past year, and with full thanks to them for their zeal and efficiency, I am convinced that occasionally they failed to understand expressions used by the candidates in correctly answering questions and sometimes were unfavourably impressed with behaviour which was simply due to nervousness but attributed to other causes. Some of these examiners had had much experience of natives and of examining them, but others were acting in their capacity for the first time. I in no way complain of results, which were satisfactory, but a permanent Board will, I am certain, prove much more efficient and practicable than a series of temporary ones possibly could be. There is nothing more harassing to a teacher than to see an unfavourable impression produced on an examiner by a student who knows the answer to a question but expfesses himself badly. This applies to an extent to the written test but still more to the oral and practical ones, and it certainly renders examination of students, mostly natives, by examiners, mostly Europeans, a matter of experience and tact as well as knowledge on the part of the latter. A further argument is that it is necessary for the Board to know the standard to which we can educate our students. Thus a Class A student has yet another year to study physiology and must not be expected to have a very profound knowledge of it at his first examination, and a Class B student, for the same reason, must not be too severely tested in medicine and surgery. I am in hopes that the average amount of knowledge conveyed to our students before they become practitioners will equal that given in the British schools but differ somewhat in adaptation to Indian practical needs, and I trust the latter fact will be duly taken into consideration at the examinations. Doubtless our best men will not equal the best European graduates, but they will not fall far short, and the discrepancy will disappear with time and the still further development of the College. There is every probability that some on graduation will proceed to England to take the diploma of the Royal College of Veterinary Surgeons there. I have not yet heard the result of my application to the Council of the Royal College of Veterinary Surgeons for recognition of our institution any further than that it is to be considered with the whole subject of Colonial registration and affiliation at a meeting to be held shortly. While I am of opinion that it will take some years to give native students the expertness in horse and cattle handling which English boys generally acquire before they come up to College, I have the pleasure to report that the senior class has made great progress in this respect and, I think, will be found by the examining Board to have much improved in smartness on going about a horse and bullock. The examination subjects and routine as fixed by the College Committee seems to me from our experience in 1887 a fair and sound test as to the efficiency of teaching in the various subjects.

4. In my last report I showed that there were 64 students attending; the number has now increased to 80, of whom some five are doubtful in regularity of attendance and seriousness in work. This number has been arrived at by prompt elimination of all non-attendants, unless some good excuse be given for absence, and by admissions amounting to 19 in all out of 27 who actually passed the Entrance Examination and were placed on the rolls. I trust Government will approve my action in not exerting pressure in any way on the candidates for graduation in veterinary science to get them to remain at the College after entering. I consider that if a man has not his heart in the work the sooner he goes to something else the better, and I further consider and impress on the

students the fact that in entering our College they are beginning the responsible work of life and have ceased to be school-boys; they must know their own minds and judge for themselves, especially in the all-important matter of selecting the line of work to which they are to devote their lives.

Thus, from distaste for veterinary studies, from want of energy or ability or general education and from other causes the unsuitable elements drop out of our class-rooms to an extent; a few remain, but the general result of this elimination I feel to be good: the remainder can be relied on as good, or at any rate zealous, students and the classes are freed from unwieldiness and elements liable to be noisy or otherwise distracting. That in our second year we have admitted 27 men and retained 19 of them shows a gratifying evidence of our continued popularity. In the first year we absorbed a number of men who for some time had been awaiting the constantly deferred opening of the College, also the students of those Native States looking anxiously for veterinary education, and 15 Government and Municipal free students; this year our numbers may fairly be considered to have been increased by private and State students who have been attracted by the success of our first year's work. The table of students is as given in Appendix A.

There is still a great demand for free-studentships, and some young men enter in the hope of sooner or later getting one, but this year few have been given as only few vacancies were available. One Government free student became a Baroda scholar, and there is a tendency noticeable on the part of the States to obtain as scholars senior students the remains of whose education will cost less than the full course for graduation. Students, naturally, gladly avail themselves of these opportunities, and the little economy thus practised is not probably in the main a disadvantage because it possibly increases the number of States sending students and will lessen the number of graduates who have to make their living in British territory and who in course of time will, like the doctors, be found numerous enough and even somewhat crowded. This latter result, however, is in the very distant future; we yet remain the only College of the kind in India; Madras and Bengal have already made slight official advances with a view to obtaining some of our graduates; Burma likewise has had a suggestion brought forward to make use of our College for education of its practitioners. thus it may fairly be anticipated that the Bombay graduates will have plenty of scope.

5. The following are to be added to the list of Native States' and Provinces' students given in my last year's report:—

One more from the Berárs, and one more by the Junágad State. One each by the Chief of Sángli, His Highness the Thákor Sáheb of Bhávnagar, and His Highness the Thákor Sáheb of Gondal.

There is a gratifying tendency of the Native States to avail themselves of the facilities for veterinary education placed at their disposal by the Bombay Government. I have reason to believe that some of the Central India States contemplate similar action, which, if carried into effect, will be sound testimony to the progress of our College.

6. Order and discipline have been satisfactorily maintained in the College throughout the year: no serious case of breach of discipline has occurred.

7. The students have shown a satisfactory tendency towards physical exercise and *esprit de corps*. Thus, a Gymkhána Club has been established, some public criket matches have been played, and a lawn tennis court is to be established on the Hospital premises by kind permission of the Trustees of the Hospital estate. Under the heading Physical Education may be included the subject of *riding* which was broached in my last report. As yet no satisfactory organization for instruction in this important branch has been made, but every opportunity has been taken by use of private animals lent for the purpose to teach riding to such students as volunteer for the study. But little can be done in this way, but the propounding of my definite scheme on the subject must stand over until we have a farrier and some resident students. There was a riding competition at some "sports" held by the students on the celebration of

the College opening day anniversary. A very satisfactory indication of appreciation of the College staff by the students has been a decision to present to the College Library a number of books in commemoration of the satisfaction felt at Assistant Superintendent Nariman obtaining the degree of M. D. of the local University. The honour done by His Excellency the Governor in nominating the Superintendent of the College a Fellow of the University was also received with lively satisfaction.

8. Experience of the past year tends to support the view previously expressed that the Matriculation test could best be fixed on as the standard of general education before admission, and also that as yet veterinary education is not ripe for such restriction. Although the matriculate has the fairest start and can best appreciate to the full the course of instruction, there can be no doubt that a number of the students who have not passed this test have shown much aptitude for veterinary studies. A small instalment of the first half-year's fees might in future be required from each candidate for the examination; in this way those who have no intention of remaining at the College or those who leave before paying fees will be made to contribute a little to our receipts and not gratuitously subject our officers to the trouble of examining them.

9. The selection of free students has in the main proved satisfactory, the results being as in Appendix B.

During the past year a few free students have been elected to fill vacancies. It would be as well in the future to carry out this object by the appointment of good students from the year of the original tenant of the free-studentship with a view to the 15 Government and Municipal studentships falling vacant in the same year. The policy of giving free-studentships is thoroughly supported by results, the men holding the best positions on our pass lists being free students in high proportion: the private paying students have held their own; some of the State students have been hampered by deficiency in general education and, especially at first, by a want of familiar acquaintance with colloquial English.

10. One candidate for employment in the horse-breeding operations and two salutris have received practical instruction in the Hospital.

In further correspondence with the Commissary General on the subject of employment of veterinary graduates in the Transport Service I have not made much ground, as no higher class of men than that at present employed can be afforded. In accordance with request, I have stated that two men at a time sent up to learn nursing of sick horses and bullocks by the Transport Branch can be permitted to pass through a Hospital course. I hope a little good will then be done, but both in peace and on active service the need of adequate veterinary attendance for Transport animals is, I am convinced, a most serious cause of considerable loss to the State.

11. Appendix C is a return of the actual lectures and instructions in the several classes by the different officers of the College.

In consequence of ill-health of the Superintendent no special course of lectures was delivered this year. The subject selected by me for the winter session, 1888-89, is "the camel in health and disease," a course of six lectures, which will be open to the public.

12. The vacancy in the College staff created by the resignation by Farrier Major Stroud of his position as Instructor in practical shoeing has not yet been filled and has caused me much anxiety and correspondence; the difficulty lies in securing a suitable farrier without putting Government to extra expense. The only way to accomplish this is to permit the occupant of the post the privilege of private shoeing in the College Forge provided it does not interfere with his official work. This should prove an adequate source of income, but the old soldiers from whom we must select one farrier rather fight shy of a post the guaranteed emoluments of which are but small. This is a difficulty I trust to overcome, especially if the Military Department will lend us a man for a period not exceeding one year before his retirement who can thus settle down to his work and clearly understand the advantages of the post before he is called on to permanently accept it.

13. The subject of the staff allowance of the Assistant Surgeons appointed to the College as Lecturers has been brought before the College Committee, which has expressed its opinion that the amount of staff allowance should increase in certain specified proportion with length of service until a maximum is attained. So long as the present system is retained this is probably the best method which could be adopted, the increase in staff allowance being dependent on these officers being favourably reported on. But I would suggest that the whole system be altered: at present the Assistant Surgeons depend for promotion on *medical* qualifications and status, in no way on efficient performance of their duties as Lecturers. This is unsatisfactory in the extreme as it prevents their interests being bound up with those of the College; they do their lecturing efficiently but not the supplemental duties depending thereon except when they tend to bringing personal *kudos*. Thus practically no specimens illustrating the work of their department have been presented to the Museum by the Lecturers on chemistry and anatomy. This is not to their credit, considering they have been two years at the College. Again there is a lack of zeal in organizing their respective branches of the College work and a tendency to minimise the amount of duty done, and this throws much work on the Superintendent which does not legitimately belong to him. Mr. Sukhia deserves credit for a compilation on anatomy brought out by him for the use of students. I would suggest that the present Lecturers be given every facility for veterinary graduation, but if they do not avail themselves of this within a reasonable time (say three years), they revert to their medical duties and be replaced by veterinary graduates. If they do become veterinary graduates I would suggest that they be seconded from the Assistant Surgeons' list and placed entirely at disposal of Veterinary Department. By securing veterinary graduates, and by this means only, it seems to me we can ensure the efficiency and the necessary zeal in the Lecturers' Department.

14. *Assistant Superintendent Nariman* officiated for me in clinical charge of the Hospital during one month last autumn. He efficiently investigated an outbreak of communicable disease in cattle in Bijápur District in May and June. He has added to his medical qualifications that of Doctor of Medicine (Bombay) and has proved himself zealous in performing his College and Hospital duties and of the greatest assistance to me. His veterinary knowledge has increased considerably, and in accordance with the decision of Government it has been arranged that he shall appear for Special Licensing Examination before the Board of Examiners in April 1888. The subjects and nature of examination have been fixed at rather a higher standard than that of the ordinary graduate examinations in order that no question may arise hereafter as to the stringency of the test, on passing which Dr. Nariman will become a legally qualified veterinary practitioner.

15. The *College Committee* has met twice during the past year, the principal subjects dealt with at the meetings being the election of free students, remuneration of lecturers, Dr. Nariman's special examination, and routine administrative work. I regret to state that latterly considerable difficulty has been experienced in obtaining a quorum of members of the Committee, which accounts for the number of meetings being below that of last year. It is proposed that, in future, routine business shall be done by circulars among the Committee, actual meetings being convened only when emergent or debated questions arise. As the College is now fairly started the administrative work has become mainly of the routine nature and can, to considerable extent, be disposed of by the Superintendent without reference to the Committee; but when such reference is necessary it can in future be made either by circular or by special meeting.

16. As regards *appliances for purposes of study* considerable progress has been made. Especially have the practical facilities increased by *considerable growth of Hospital practice.* As will be seen from the Hospital report, the number both of in-patients and out-patients has increased very considerably, and there has been a proportionate increase in dispensing. It is very evident that if the Hospital pratice increases in coming years as it has done, and as the same College classes increase, the present clinical staff will be quite inadequate for its duties.

Government has sanctioned *the building of a Chemical Laboratory*, and the work is in progress; a number of appliances for its equipment have been received from England. Thus we shortly shall be able to give our students a course of practical chemistry which will prove most valuable to them, and I trust that testing for poisons, analysis of food stuffs, and investigation of animal fluids and tissues will in future be among the duties of chemical branch of the College.

No start has yet been made with the *Botanical Garden* because of an unanticipated objection on the part of the Trustees of the Hospital estate to place the necessary small pieces of ground at our disposal. I hope to overcome these objections in the future, but if not successful, will propose to Government some other arrangements to secure adequate instruction in practical botany.

The equipment of the *Forge and Shoeing Shed*, as also that of the *Dissecting Room*, has been considerably increased by the special grant for furniture passed by Government (*vide* Government Resolution, Revenue Department, No. 5929, dated 2nd September 1887). The native farriers employed hitherto in place of the European Farrier Major have not been considered competent to teach practical shoeing, so the forge has hitherto been utilized merely to meet hospital requirements. It is now ready for immediate use for the clinical and educational purposes when a competent farrier is appointed.

The *Operating Shed*, which has this year been built under orders of Government, proved very valuable for teaching, examination, and hospital work.

The *Dissecting Room* has been freely used by Class B, and "subjects" obtained by special arrangement with a contractor, as the supplies of fatal cases from the hospital were not sufficient to fully meet our requirements. The dissections this year have been of a fair average considering that was the first year of practical anatomy of both instructor and students.

Numerous *post-mortem examinations* have been made—some fifty-three being hospital cases, a few of animals sent from the Victoria Gardens for determination of cause of death, and a few cases of suspected poisoning or special disease, such as Rabies.

The valuable mass of material for study in the *Pinjrápol* has not yet been made much use of by us because the teachers and students had no time available for proceeding for study periodically to such a distance from the College, also because the material obtained in other ways has proved quite adequate, and, finally, because the Class C, to which such instruction as can best be obtained at the Pinjrápol would be of special value, can hardly be yet considered to exist. Among *the special practical facilities which have occurred for education of the students in the past year* must be mentioned the inspection of the large number of cattle brought to Bombay for shipment to Massowah, also of horses brought from Persian Gulf in the steamship "Assyria," among which Glanders broke out. His Excellency's Body Guard and the Transport Department have sent animals for treatment in our Hospital.

The *dead stock* of the College has been increased during the past year by the purchase of *furniture* for the Forge, Dissecting and Lower Lecture Rooms. The number of *diagrams* for illustration of lectures now amounts to 37. The *Museum* has had its number of specimens added to considerably, both from the Hospital and by presentations from various members of the veterinary profession and others, to whom have been conveyed the thanks of the Administrative Committee. The Museum space available is being very considerably increased under orders from Government, and when the alterations have completed and the anatomical lecturer has mounted the skeletons which are ready for the process, the College Museum will intrinsically and educationally constitute a valuable portion of the institution.

The *Library* has had a fair increase in number of its volumes as given in Appendix D.

Government having decided not to employ a joint Librarian and Curator of Museum, the work in connection with these portions of the institution has fallen to the various members of the College staff, but can hardly be considered in this way to be so thoroughly performed as it might be by means of an officer told off to the special charge of the Museum, specimens, books, diagrams, surgical instruments, and other such valuable Government property now deposited in the College.

17. The Public Works Department, in addition to building the Practical Examination Shed and commencing the Chemical Laboratory and porch with museum, has considerably improved the ground round the Dissecting Room and made a road leading to it, with a view to increasing its accessibility during the rains. Further, designs and estimates have been drawn out for quarters for six resident students, which designs have been submitted to Government.

18. One of the most important matters which has had to be considered during the past year is the *measures best calculated to secure employment of Veterinary Graduates* as soon as we have any, which will probably be in April 1889. There can be no doubt that in Bombay and in larger towns of the Presidency a fair number of graduates will be able to earn a living as private practitioners; the public will be willing enough to pay fees for the treatment of the *horses*, but fees which can be derived from treatment of cattle will doubtless be few. From this we infer that in the natural course of things veterinary practitioners in private practice will be found only in Bombay, Ahmedabad, Karáchi and other such places, but not without Government aid be able to obtain a living in the smaller towns and throughout the districts. I have submitted to Government suggestions as to the gradual development of a Subordinate Veterinary Service for repression of cattle disease and allied duties throughout the Presidency. I consider that the small number of graduates proposed to be annually employed by Government will suffice to absorb available men, because in addition to private practice the wants of various States and Governments, other than those of Bombay, have to be met. In these several ways the 14 or 15 men who probably will pass every year will almost certainly all find employment. Bombay yet remains the only College of its kind in India. During the past year Madras has introduced a scheme for Veterinary Diplomas in its Science and Arts Department as a development of technical education, but the length of time required, the severity of the curriculum, and the absence of schools for instruction in veterinary subjects will, I have no doubt, prevent the Madras Diploma in any way competing with ours, if it ever obtains any status even in its own Presidency.

I hope that the Municipalities, especially that of Bombay, will utilize their nominees to free-studentship, when the latter become graduates, for the charge of Municipal cattle, the inspection of slaughter-houses and of markets for live cattle. I have drawn attention to the fact that a graduate when available might benefitingly be attached to the staff of the Health Officer of the Port.

19. The duties of cattle-disease repression have, as last year, been carried on from the College. The health of cattle has recently been good, but in the commencement of the year the Superintendent proceeded to Ratnágiri, the Assistant Superintendent to Bijápur, and Mr. D. N. Vakil to Broach, Ahmedabad and Panch Maháls for repression of outbreaks. Recently the experiment of deputing veterinary students to deal with cattle-disease in the Sholápur District has been tried with satisfactory results.

The Superintendent has drawn out and published under sanction of Government "Instructions on Cattle Diseases" for the use of local officers, also the Kolhápur Primer on Cattle Disease, which has been favourably mentioned by Government recently. Arrangements have been made for the annual production of a primer of this kind on some veterinary subject.

20. I have the pleasure to report that the Honourable Mr. Justice Bayley has promised a sum of Rs. 50 annually to the *College Prize Fund.*

Sir Dinshaw Mánokji Petit has invested a sum of Rs. 500, the interest of which is to be devoted to award of prizes for the students.

The prizes which were announced for competition for the last year have been repeated for the present year.

It is satisfactory to me to report that the essay's competition on the subject of the cattle of Gujarát was well contested and the essays supplied some interesting information concerning the Gujarát breed, which has been published in our professional periodical. The Government scholars for the year were:— 1, Mr. C. Pillay (for the first six months) and Mr. K. P. Devasthale (for the last six months); 2, Mr. S. K. Doctor; 3, Mr. J. R. Dáruwála, 4, Mr. N. D. Dhákmárwála; 5, Mr. J. K. Bátliwála; 6, Mr. H. S. Bátliwála; 7, Mr. D. N. Patel; 8, Mr. V. E. Vákhária; 9, Mr. M. K. Patel; 10, Mr. J. R. A'ria; 11, Mr. D. F. Dubásh; 12, Mr. N. R. Kothawála; 13, Mr. P. D. Maniar; 14, Mr. J. E. Bharucha; and 15, Mr. B. S. Shroff.

The other prizes were awarded as follows:—

1. Steel free studentship: Mr. Dhákmárwála.

2. Essay's prize, Rs. 32 worth of professional books: Mr. Alvarez. A second essay's prize, a case of dissecting instruments: Mr. S. K. Doctor.

3. For the highest total of marks at the May Professional Examination:—

First prize, a pocket case of veterinary instruments: Mr. S. K. Doctor.

Second prize, a clinical thermometer: Mr. Dáruwála.

4. Records of cases prize:—

Consolation prize, a case of dissecting instruments: Mr. Dhákmárwála.

5. *Post-mortem* examination records: no award.

21. Appendix E is the statement of the *financial condition of the College*, details being given in accordance with instructions contained in Government Resolution on the Annual Report of the last year.

22. In accordance with instructions from Government the Superintendent of the College was present as one of its representatives at the *Delhi Conference* at the end of March and beginning of April 1888. The proceedings of the Conference have been reported in detail, but I may here mention as satisfactory that it was recognised at the Conference that the policy of the Bombay Government in veterinary education and cattle-disease repression is considerably more advanced than that of other parts of India, and, considering the good start already made in Bombay, it may be thought desirable that the Bombay Veterinary College should hereafter become the centre of high class veterinary education in India. The College, with a view to this, would need increased facilities for study of Bacteriology and Pathology, and an addition to strength of its European staff by at least one veterinary officer for clinical work of special pathological search. Possibly in the future the Government of India will be willing to acknowledge ours as the Central and Imperial College for India and, accordingly, consent to give us an extra veterinary officer. From a scientific point of view there is an amount of pathological material constantly going to waste in the College and Hospital for want of sufficient time for its thorough investigation by the present staff.

Finally, I may here express the satisfaction of, and encouragement to, the students and teachers of the College derived from the visit of inspection made by His Excellency the Governor when on 5th March he came to Parel to open new wards in connection with Bái Sáker Bái Hospital.

I have the honour to be,
Sir,
Your most obedient Servant,
JOHN HENRY STEEL, V.S.,
Superintendent, Bombay Veterinary College and Hospital.

APPENDIX A.

Table of Students in the Bombay Veterinary College.

CLASS C.

Caste.	TERM I.					TERM II.					Total.	REMARKS.
	Paying.			Free.		Paying.			Free.			
	Private.	Native States, &c.	Private free.	Government.	Municipal.	Private.	Native States, &c.	Private free.	Government.	Municipal.		
Hindu	...	...	...	...	...	...	2	...	...	...	2	
	...	...	...	...	...	...	2	...	...	...	2	

CLASS B.

Pársis	12	...	1	5	2	...	...	...	...	...	20
Hindu	5	3	...	1	...	1	2	...	1	...	13
Mahomedan... ...	...	1	...	...	...	...	1	...	...	...	2
Jew	...	...	...	1	...	...	...	...	...	...	1
Portuguese	1	...	...	...	...	1	...	1	...	...	3
European and Eurasian	...	...	...	...	...	1	...	...	...	...	1
Other...	...	...	...	...	...	...	...	...	...	...	...
Total ...	18	4	1	7	2	3	3	1	1	...	40

CLASS A.

Pársi	4	...	...	2	1	...	...	...	...	..	7
Hindu	5	9	...	1	...	...	1	...	...	...	16
Mahomedan... ...	...	2	...	1	...	...	...	...	...	...	3
Jew	...	...	...	...	...	...	...	...	...	...	...
Portuguese	5	...	...	1	...	3	...	...	...	...	9
European and Eurasian	2	...	...	...	...	1	...	...	...	...	3
Other	...	...	...	...	...	...	...	...	...	...	...
Total ...	16	11	...	5	1	4	1	...	...	...	38
GRAND TOTAL ...	34	15	1	12	3	7	6	1	1	..	80

25th May 1888.

JOHN HENRY STEEL, V.S.,
Superintendent, Bombay Veterinary College and Hospital.

APPENDIX B.

Table of Free Students in the Bombay Veterinary College.

Particulars.	Government.	Municipal.	Total.
Passed 1st Examination in April 1887	7	2	9
Passed 1st Examination in September 1887 ...	1	.....	1
Remaining in Class A.	2	.....	2
Withdrawn	2	1	3
Total ...	12	3	15

25th May 1888.

JOHN HENRY STEEL, V.S.,
Superintendent, Bombay Veterinary College and Hospital.

APPENDIX C.

Return of Lectures delivered at the Bombay Veterinary College during 1887-88.

No.	Subject.	Officer.	Class A.									Class B.									Grand Total.
			June 1887.	July 1887.	August 1887.	November 1887.	December 1887.	January 1888.	February 1888.	March 1888.	Total.	June 1887.	July 1887.	August 1887.	November 1887.	December 1887.	January 1888.	February 1888.	March 1888.	Total.	
1	Medicine and Surgery.	Superintendent ...	...	...	...	...	...	...	...	...	...	4	14	6	...	12	13	14	21	84	84
2	Demonstrations ...	Do. ...	3	12	6	11	10	9	10	10	71	...	...	...	...	...	...	...	...	...	71
3	Hospital Practice...	Superintendent and Assistant Superintendent.	...	...	...	...	...	...	...	...	...	9	15	18	33	18	22	23	19	157	157
4	Anatomy	Lecturer on Anatomy, &c.	2	10	5	13	9	9	9	11	68	4	14	10	16	11	13	14	15	97	165
5	Physiology ...	Do. ...	3	5	4	5	2	5	5	4	33	3	8	5	7	6	4	8	7	48	81
6	Dissection	Do. ...	...	...	...	...	...	...	...	...	...	6	12	6	8	1	10	8	5	56	56
7	Chemistry	Lecturer on Chemistry, &c.	7	20	11	13	9	15	15	8	98	1	5	2	5	2	5	5	3	28	126
8	Botany, Materia Medica, &c.	Do. ...	5	14	9	12	11	16	16	14	97	...	...	...	...	...	...	...	...	...	97
		Total Lectures ...	20	61	35	54	41	54	55	47	367	27	68	47	69	50	67	72	70	470	837

25th April 1888.

JOHN HENRY STEEL, V.S.,
Superintendent, Bombay Veterinary College and Hospital.

APPENDIX D.

Return of the Number and Nature of Books added to the Library of the Bombay Veterinary College in the year 1887-88.

No.	Name of Class.	Purchase.	Presentation.	Exchange.	Total.	Remarks.
I	Chemistry	1	...	...	1	
II	Botany	...	...	...	...	
III	Materia Medica, Pharmacy, &c.	4	2	...	6	
IV	Veterinary Surgery and Medicine.	17	10	...	27	
V	Diseases and Management of Dogs.	2	...	...	2	
VI	Anatomy and Zoology	...	2	...	2	
VII	Physiology	...	...	...	...	
VIII	Sanitary Science, &c.	2	1	...	3	
IX	Animal Management	1	...	...	1	
X	Journals and Reports	58	41	...	99	
XI	Government Reports	...	8	...	8	
XII	Miscellaneous	...	13	...	13	
	Total ...	85	77	...	162	

Total previous number of Volumes	261
„ books added...	162
Total Books, &c., now in Library ...	423

APPENDIX E.

I.—Financial Statement of the Bombay Veterinary College.

BALANCE SHEET FOR THE YEAR 1887-88 : BUILDING CHARGES AND EXAMINERS' FEES NOT INCLUDED.

Expenditure.	Rs.	a.	p.	Receipts.	Rs.	a.	p.
Cost of teaching staff ... (Pay of Lecturers as Assistant Surgeons not included)	16,713	0	0	Fees for 1886-87 received (arrears)	350	0	0
				Fees for 1887-88 received	2,280	0	0
Cost of establishment ...	1,304	4	4				
Contingent allowance ...	860	0	0				
Dead stock	500	0	0				
Scholarships	900	0	0				
Total ...	20,277	4	4	Total amount received by College	2,630	0	0
Add—Building charges	(*x*)						
Examiners' fees ...	(*y*)			Add Municipality grant in support of College...	2,500	0	0
Total Cost of College in 1887-88	20,277	4	4+*x*+*y*	Total Receipts in 1887-88.	5,130	0	0

II.—The following Table represents the state of College affairs as regards fees to date, i. e., 25th May 1888.

Year.	Received prior to 15th April 1888.	Not paid.	Sums received in part payments.	Received before 1st April 1887.	Received before 15th April 1888.	Received after 15th April 1888.	Remarks.	Paid in to Government Account.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.
1886-87.	2,235	420	105	1,885	350	30	Still due Rs. 615 } These sums are partly due by students and Native States, &c., recoverable: partly, sums for various reasons unrecoverable.	2,005
1887-88.	2,280	1,200	...	...	2,280	295	„ „ 905 }	600
1888-89.	...	...	...	....	...	90	..... }	1,910
Total ..	4,515	1,620	105	1,885	2,630	415	„ „ 1,520	4,515

25th May 1887.

JOHN HENRY STEEL, V.S.,
Superintendent, Bombay Veterinary College and Hospital.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

Bombay Veterinary College: Annual report of the —— for 1887-88.

No. 4292.

REVENUE DEPARTMENT.

Bombay Castle, 29th June 1888.

Letter from the Superintendent, Bombay Veterinary College, No. 337, dated 25th May 1888 —Submitting the second annual report of the College; and appending a copy of his report of the Bái Sákarbái Dinsha Petit Hospital for Animals for the year 1887.

RESOLUTION.—In submitting his annual report upon the working of the Bombay Veterinary College for the year ending on the 31st of March last (to which is appended a copy of report made to the Secretary of the Society for the Prevention of Cruelty to Animals concerning the operations conducted in the Bái Sákarbái Dinsha Petit Hospital for Animals for the calendar year 1887) Mr. Steel, the Superintendent, deals with a large number of questions, several of which are under the separate consideration of Government, and do not therefore call for special remark in the present review, which will be confined to an examination of the results of the legitimate work of the College during the year.

2. Last year's report dealt with a period of eight months only during which the institution had been open. The present therefore is the first report actually embracing the facts and figures of a full year. At its commencement the number of students attending the classes was 64, while at its close it had risen to 80. The first examination was held in April 1887 at which 43 candidates appeared for their first professional examination, of whom 34 were successful. No students were as yet qualified for appearance for the second or higher standard. A supplementary examination was however, with the approval of Government, held in September, at which 2 Hospital Assistants from Central India were permitted as a special case to appear for the second examination without having gone through the usual curriculum, whilst 17 candidates presented themselves for the first examination. The 2 Hospital Assistants passed, as also did 8 of the latter. There were therefore at the close of the year undergoing instruction 2 seniors who had passed the second examination; 40 intermediates who had passed only the first examination; and 38 juniors who had as yet appeared for none except that required on entrance. The practice of having supplementary examinations is open to serious objections as pointed out by the Superintendent and should only be resorted to in cases of peculiar necessity, which are unlikely often to occur. The question of the appointment of a permanent Board of Examiners is under the separate consideration of Government and orders thereupon will shortly be issued.

3. It is gratifying to learn that the progress made by the free Government and Municipal students as a rule fully justifies their selection. Of these there are apparently 15 as shown in Appendix B to the report, a figure which does not however tally with the details in Appendix A in which 16 such students are entered. The tendency of the Native States of the Presidency to avail themselves of the education given at the College is worthy of notice. There are in the institution 21 students sent from foreign territory, the Chiefs of Sángli, Bhávnagar and Gondál having to be added this year to the list of those who have taken action in the matter. Appendix A shows one student as "Private free," a classification which is not understood, unless it refers to holder of the "*Steel Free* Studentship" mentioned in paragraph 20 of the report.

4. Mr. Steel suggests in paragraph 8 of his report that an instalment of the first half-year's fees might be required from each candidate for the entrance

examination by way of fine upon such as appear without any intention of pursuing their studies after passing. Government would be glad to receive the opinion of the College Committee on this proposal.

5. The resignation of the Farrier-Major at the commencement of the year and the delay in the appointment of his successor have been unfortunate, though unavoidable. The question of the means of supplying a suitable man to fill the post is now under consideration: and meanwhile a native farrier is employed as a temporary measure.

6. His Excellency the Governor in Council trusts that the decrease in the attendance of the Committee at their meetings is not caused by any falling off in interest in the management of the important institution under their control. No doubt their work in organization has been mainly accomplished, and much work of a purely routine nature can easily be managed by the circulation of papers, but the advantages which must result from the personal intercourse of the members of the Committee for the discussion of points connected with the welfare of the College are so obvious that Government trust that it may be found feasible to hold a greater number of meetings in future years.

7. During the year a practical examination shed was constructed, and a commencement made of a chemical laboratory: the equipment of the dissecting room and forge has been considerably improved, while numerous additions have been made to the museum and library. The grounds around the buildings have also been put in better order, and designs for quarters for resident students have been drawn up and submitted to Government.

8. Mr. Steel touches in his 18th paragraph upon "the measures best calculated to secure employment for the veterinary graduates." The subject is a large one, and cannot be satisfactorily dealt with in an annual report. It is moreover already under consideration, and comment thereupon may be conveniently postponed until the question is ripe for disposal.

9. The duties connected with the repression of cattle-disease were again during the year carried on from the College, and visits of inspection were paid by Mr. Steel, his Assistants, and in one case by two students to Ratnágiri, Broach, Bijápur, Ahmedabad, the Panch Maháls and Sholápur. The results are said to have been satisfactory: but as they have been made the subject of special report to Government, and are under consideration in connection with the whole question of the prevention of disease among cattle, it is unnecessary to allude further to them in this place.

10. Conformably with the wishes of Government, expressed in their Resolution reviewing his report last year, Mr. Steel has submitted a statement of account (Appendix E) giving the receipts and expenditure (excluding building charges and examiners' fees) for the past year. The former are put down at Rs. 5,130 (Rs. 2,630 from fees and Rs. 2,500 from the municipal grant,) and the latter at Rs. 20,277. It does not appear however upon what grounds the grade pay of the two Assistant Surgeons, lent to the College as lecturers, which amounts to Rs. 3,000 per annum, has been omitted from the debit side of the account. Nor is it clear whether the fees credited were all recovered within the financial year. The financial statement has indeed not been prepared with sufficient clearness, and the Committee should be asked to prescribe a form of balance sheet which will convey the necessary information in a succinct form without obscurities. Regarding the arrears of fees, which are an unsatisfactory feature of the accounts, it is not clear whether any portion of them is due from those still under education, or whether all the defaulters have left. In the former case their recovery should admit of no difficulty and ought not to be delayed. The attention of the Managing Committee should be called to this point which is well worthy their consideration.

11. The connection of Government with the Animal Hospital is only indirect, and in so far as it provides material for clinical instruction to the students of the College. It is unnecessary to comment upon the report of its working for the year further than to observe that it appears to be securing increased popularity and, it may be hoped, is giving material aid to the Society for the Prevention of Cruelty to Animals, by showing the advantage of proper treatment and discrediting the irrational and often inhumane methods so largely prevailing.

12. Mr. Steel's reports give evidence of sustained interest and zeal in the conduct of his duties and the development of veterinary education and practice from which much future public benefit may be anticipated.

E. LAWRENCE,
Acting Under Secretary to Government.

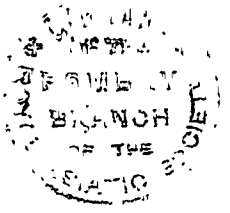
To

The Superintendent, Bombay Veterinary College and Hospital,
The Commissioners of Divisions and in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Political Department of the Secretariat,
The Political Agents, Káthiáwár, Cutch, Kolhápur and Southern Marátha Country and Mahi Kántha,
The Political Superintendents, Pálanpur and Sávantvádi,
The Political Resident, Aden,
The Superintendent, Horse-Breeding Operations,
The Municipal Commissioner for the City of Bombay,
The Accountant General,
The Educational Department of the Secretariat,
The Director of Public Instruction,
The Director of Land Records and Agriculture.
} With copies of the reports.

The Government of India,
The Secretary of State for India.
} By letter.

No. of 1888.

Copy forwarded for information and guidance to



REPORT

OF THE

BOMBAY VETERINARY COLLEGE

AND OF THE

BA'I SAKARBA'I DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1888.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1889.

[Price—Three Annas.]

BOMBAY BRANCH
OF THE
Royal Asiatic Society.
CLASS

REPORT

OF THE

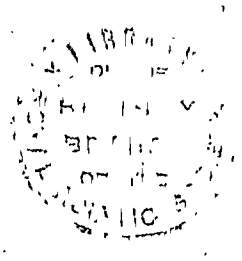
BOMBAY VETERINARY COLLEGE

AND OF THE

BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1888.

JJ-K-37



Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1889.

No. 391 OF 1889-90.

FROM

VETERINARY SURGEON J. H. STEEL, F. R. C. V. S.,
Principal, Bombay Veterinary College.

To

THE SECRETARY TO GOVERNMENT,
Revenue Department.

Bombay Veterinary College,
25th May 1889.

SIR,

I have the honour to submit, for the information of Government, the *Third Annual Report of the Bombay Veterinary College*, dealing with transactions of the official year 1888-89.

2. Shortly after my last Annual Report was submitted, the *Second Annual Professional Examinations* were held at the College by a Special Board appointed by Government, consisting of Inspecting Veterinary Surgeon J. H. B. Hallen, General Superintendent Horse-breeding Operations, (as President), and Veterinary Surgeon (1st Class) Grainger and V. S. Pottinger with Dr. Deshmukh (as Members). The sittings of this Board extended from 23rd April to 1st May 1888, and the results were declared, as follows in Appendix A. This was practically the first time a Second Professional Examination was held at the College, and Mr. Hallen's wide experience as an examiner of Indian veterinary students, at Lahore and elsewhere, rendered his approval of the manner in which our men acquitted themselves at their practical work specially gratifying and encouraging to the staff. The system of examination for Class B, as prescribed in the College Rules and Regulations, proved satisfactory and practicable, and no difficulty was experienced by the staff in conveying the requisite instruction. As a result of this examination (together with entries and withdrawals) we commenced in June with classes as follows :—

A 21; B 32; C 27—total 80.

At the end of the year under report they are—

A 17; B 30; C 28—total 75.

In Class C, one student, M. Narayen Rao, joined with approval of Government. He held the Madras veterinary qualification obtained at Saidapet Agricultural College and had performed veterinary duties under the Madras Government, so was permitted (Government Resolution No. 7211, dated 29th October 1888) forthwith to enter Class C and study for the diploma. This constitutes a precedent for admission of veterinary graduates to our College for a one year's course of study—a system in accordance with that of most professional educational bodies. Class B has lost 2 students: one sent up by the Cutch State had to return home on account of ill-health (he applied for a certificate of studies, but was informed that certificates are given only to graduates); the other left rather than pay arrears of fees.

In Class A 10 men retired and 6 joined the College, but of the latter 2 have practically not attended at all.

Thus, our present strength is 75, against 80 last year.

3. We have not to seek far for the *causes of this decrease in the number of students.** They are :—

* *Entries*—
First year 69
Second „ 19
Third „ 6

(*a*).—A re-action after the first enthusiasm when the College was opened.

(*b*).—A desire among possible candidates to observe what openings there are for our graduates before committing themselves to a course of study by entry and payment of fees.

(*c*).—Opening of the Victoria Jubilee Technical Institute.

(*d*).—The decision of the College Committee (confirmed in Government Resolution No. 5788, Revenue Department, dated 23th August 1888) to admit only matriculates.

(*e*).—Possibly also the absence of the Principal on sick leave.

Of these causes (*a*) was to have been anticipated; (*b*) requires to be noticed specially; (*c*) and (*e*) were in this relation unfortunate circumstances, but unavoidable; and (*d*) seems to have originated in a misunderstanding, but I fear by combining with the other influences it may have a serious effect on the future of the College. The arguments for and against enforcement of the Matriculation as the entrance test will shortly be placed before Government; they have been elicited with care from the members of the College Committee, and the decision of Government on this matter involves a declaration of policy as to the immediate future action of the College. Either it will continue to admit non-matriculates and trust to the great need for educated veterinarians in India to create such a demand for the services of graduates as will in the future determine a supply of students, or else, there being now 75 students in the College, its door of entry will for a time be practically closed by demand of a Matriculation certificate from applicants until the country shows that in its need for veterinary practitioners it will remunerate them sufficiently to induce matriculates to enter the College and until the College shows it can turn out high class graduates such as the country requires and Government demands.

4. This *entrance test question* hinges to an extent on that of employment for graduates. If Government must employ all graduates to prevent their lapsing into the already over-large class of the educated unemployed, it will be wise not to develope a native veterinary professional body so rapidly as the College is capable of doing. On the other hand if, as is contended, the country is prepared to employ native veterinarians and to adequately pay them, the College should, I submit, continue to work on the lines originally laid down; but we must not be surprised if young men prudently wait to find out the true prospects before they join the College. Personally I am in favour of adhering to the original policy, (which I think has not had yet full trial), of admitting non-matriculates after a suitable test in general education. I have elsewhere fully stated my views, but may here express my opinion that the lines on which the College was originally started are sound, and that any present change of them is to be deprecated. I consider our graduates will, as a class, be the best veterinarians ever turned out in India and most suited to the requirements of the country, and I certainly think it premature to take a despairing view as to their future before they have even graduated! I could without hesitation report a hundred posts under the Supreme and Local Governments of India which might be held by such men as graduates of the Bombay Veterinary College will be with benefit and even economy to the country, they being given suitable salaries. Not only is this the case, but also I feel assured that when our pioneers have fought the uphill work of a new profession in the leading towns of India the public will support a large number of non-official veterinarians in a respectable position. The number of lame horses and bullocks in Bombay, the prevalence of diseases of various kinds among the larger domestic animals of the Presidency towns and the mofussil, and the success of a number of empirical cattle and horse doctors in spite of their utter ignorance and absolute harmfulness to their patients are evidences of "room" for the profession. It is for Government to decide whether it will lend aid to the incipient profession in this Presidency, as has been done in most Continental countries, or whether it will leave the profession to fight its own battle, as has been done successfully in Great Britain? However, this must be remembered, each graduate costs Government money and is capable of returning it by his services; therefore we must consider

as a distinct loss of professional energy every graduate who fails to practise his profession. To secure to Government a satisfactory return for its expenditure on veterinary education and at the same time not repress independence of feeling and action in the new profession is a matter requiring much tact and judgment. In anticipation of the first batch of graduates obtaining their diplomas in the coming May, *the question of giving a certain number of them employment under Government* has been under consideration. The representations made to induce Government to open a Veterinary College, especially those of a certain section of the Native Press, might reasonably have been taken by Government to show that in supplying fully educated graduates for veterinary practice it was meeting a long-felt want, and that the urgent need for such graduates would lead to their being at once absorbed on obtaining their diplomas in private practice, as has been the case in most European countries. Experience, however, with the medical and other professions led Government to anticipate that there will be a surplus of graduates in veterinary science whose services may be utilised in the performance of duties beneficial to the country at large. It might reasonably have been urged that, having supplied the veterinary practitioners called for, Government should expect the public to justify further supply by fully employing all as they become available; but in consideration of the acknowledged poverty of cattle-owners in the districts where no educated scientific veterinary practitioner could expect to gain a living by private practice, and considering the known prevalence of contagious cattle diseases, Government has thought right to recognise scope for a fully organised cattle-disease repression service and for establishment under local authorities of *Local District Veterinary Hospitals and Dispensaries.* While not in any way committing itself to the establishment of a Civil Veterinary Department, Government in its Resolution No. 1457, Revenue Department, dated 21st February 1889, has made an offer to local bodies with regard to the latter.

It would as yet be premature to make any statement concerning these hospitals and dispensaries; the general feeling among students is that the inducements held out are not tempting enough, and presumably it will not be unsatisfactory to Government if all the earlier graduates can obtain *veterinary* employment in other ways sufficiently remunerative to enable them to despise the inducements offered in connection with the local hospitals. As a matter of fact, there will probably be candidates for any local hospitals started; especially Hindus, (who have proved themselves very fair men with cattle), may find the pay offered sufficient. It is satisfactory to me to be able to report that several districts have considered the subject and are negotiating with a view to establishing hospitals or dispensaries, and it is gratifying that the majority of these districts are the ones in which veterinary aid has already been afforded recently from the College, as by deputation of cattle-disease inspectors.

Native States will absorb some graduates, some will practise privately in Bombay and other large cities of India, some will probably enter Government service in other provinces, a few will be engaged by large horse-owning companies, municipalities, and so on, and some (we must anticipate) will become the shifting unsuccessful element of which we find evidences more or less considerable in all professions. It is to be hoped that Government will secure absolutely the best men as a reserve to fill any vacancies which may occur on the College teaching staff; so I have proposed that three of the graduates specially selected be appointed temporary College and Hospital Assistants; they ought to prove valuable to the College and not expensive to Government. I hope some of our best men will go into private practice, but that a number of good men will be available for deputation on cattle-disease repression duties and for appointment to the Civil Veterinary Department when it is started. Finally, under Rule B. 17 of the College, Government is distinctly under no obligation to find employment for graduates any further than may seem to the benefit of the country and politic in relation to the idea which seems so current in India that Government having educated men is bound to employ them. I am confident the veterinary profession of Bombay will do well in the future, and that the graduates of the Bombay Veterinary College will be found to be *the* native skilled agency to intermediate between British veterinary officers and shrewd country cattle-owners, the want of

which agency has up till now made Government measures for cattle disease repression in all parts of India abortive. The College has already had a visible effect in modifying treatment of animal diseases and injuries, especially among cattle of Bombay; it is to be hoped that each graduate sent out will act as a centre for the diffusion of knowledge on rational treatment of disease (particularly that of a communicable nature). Hereafter it will be found that the effect of the College, direct and through its graduates, will be even more by improvement in management of sick and healthy cattle, cessation of cruel and barbarous practices, rational measures against contagion, and so on, than by the number of cases actually treated in hospitals. This will be manifest in the course of time and from steady continuity of policy in spite of discouragement of various kinds; the course to be taken is clear, and so far the advance along it has been satisfactory; possibly before long a scheme for local instruction of cattle-owners in the vernacular by graduates in charge of hospitals may be devised. I have dwelt at considerable length on the question of future employment of graduates, because I feel it to be the most pressing matter as regards the future welfare of the College. It has two urgent bearings at present. The first is the question of suitable remuneration of a graduate, for information of Local Boards and other bodies willing to start hospitals and also of Rájás and other Chiefs desirous of employing our men. The second is, what action Government ought to at once taken to organise a Civil Veterinary Service. I have roughly estimated the monthly value of a graduate's services at Rs. 100 in Bombay; up-country, where house-rent and living are less expensive, a smaller sum may be found sufficient; and graduates of those castes whose living is least expensive will be able to afford to work for less than will the Pársis and Europeans. While such evidence as I could bring to bear on this point (social status of present students, average income in the sister profession, &c.) has led me to the above conclusion, I trust many of our graduates will earn much more than the sum mentioned, and am fully aware that others will be content, doubtless, with less. Whether or no this estimate be correct, it has been used as a working basis for reply to *applicants for services of graduates*.

These *applicants* have been (*a*) Municipalities, (*b*) Local Boards, (*c*) Native States, (*d*) Native Cavalry, (*e*) Transport, (*f*) Police, (*g*) Provincial Governments. We can meet the requirements of all these if they will realise that we turn out neither salutris nor farriers but veterinary graduates, who, having passed through three years of study and in many cases having paid for their professional education, must be remunerated in pay and status accordingly. This impression we are gradually succeeding in conveying to applicants, and I think that, far from wanting employment for graduates, in due course we shall find the native veterinary profession in high demand. As regards applicants for services of graduates, we need not here enter into detail, but we may notice a few leading points :—

(*c*). Native States for the most part will enter their own men as State students at the College. Our "foreign students" in the past year were 24 in all.* Now the troops of Native States are to muster with those of Her Imperial Majesty for frontier defence it is to be hoped their cavalry, artillery and transport will receive due veterinary supervision, for which duty and for charge of Darbár stables, body-guards, and breeding establishments our graduates will be fully competent.

* Fresh appointments having been made, as follows, by—
(1) His Highness the Rána of Porbandar.
(2) His Highness the Thákor Sáheb of Wadhwán.
(3) The Madras Government.

(*e*). The Government Transport Service has hitherto struggled on with ill-educated salutris, whose unfitness has been constantly reported on by officers of the Army Veterinary Department; for adequate inducements we shortly will provide veterinarians whose value to the Transport Branch in peace and war would be inestimable and their cost very moderate.

(*d*) and (*f*). Native Cavalry and Police would find their Chunda funds in a much better condition if they placed their nálbands under qualified veterinary graduates and discharged their salutris.

(*a*), (*b*) and (*g*).—Inspection of live and dead cattle, markets, milk, and fairs or shows would be much more effectually done than now if Municipalities, Local Boards, and Provincial Governments employed qualified veterinarians for these duties.

5. Several reasons may be adduced to account for *the number of students who left the College in the past year:*—

(*a*). Some have found the examinations altogether too severe for them, and do not consider it worth while to continue to pay fees.

(*b*). Others have thought they saw a better opening elsewhere.

(*c*). Some either by payment of fees for a term or as having been elected to free studentships were students in name, but did not actually attend. The Committee has dealt with this by passing regulations for removal, from the rolls, of names after a definite short period of non-attendance without leave of absence.

(*d*). In one case only does insistence on adherence to the rules and regulations as regards payment of fees seem to have led to withdrawal of a promising student.

6. *The subject of payment of fees* has, in accordance with instructions from Government as based on my report for last year, been dealt with at the meetings of Committee, so that at present this matter is practically correct up to date. Owing to certain causes (especially the necessary confusion at starting of the College and inexperience on my part of the difficulties in getting native students to pay their small fees), arrears in April 1888 amounted to a considerable sum. The causes of this state of affairs are now removed, and the greater part of the arrears have been recovered (as shown in Appendix E). The total College expenditure, it will be seen by reference to the appended statement, was Rs. 25,939-3-3 during the past year and the income was Rs. 7,085.

In 1887-88 they were:—

	Rs.	a.	p.
Income	6,805	0	0
Expenditure	24,679	6	7

(Figures received from the Accountant General, Bombay.)

7. In its Resolution No. 4533, Revenue Department, dated 9th July 1888, Government made the important *appointment of a permanent Board of Examiners*, as follows:—

President.—(1). The Inspecting Veterinary Surgeon, Bombay Presidency.

Members.—(2). The Army Veterinary Surgeon employed for the time being as Veterinary Lecturer at the College of Science, Poona.

(3). The Superintendent, Horse-breeding Operations.

(4). An officer of the Grant Medical College nominated by the Principal of that College.

(5). An officer to be appointed when necessary from time to time by Government. (Dr. Deshmukh, Assistant Chemical Analyser to Government, being appointed under the last head.)

Of this Board the requisite number of members to be assembled by the Principal, Bombay Veterinary College, annually when required. This Resolution will prove a great boon to the College teaching staff and students, in securing as authoritative, responsible, and experienced a Board of Examiners as is obtainable, and it will lessen the necessity for constant reference to Government under this important section of the College work. Already some very useful rules concerning the award of marks, method of examination, and time to be occupied by each subject have been reported to Government for approval, after deliberation on them by the College Committee.

8. Although on the basis of those of the Royal College of Veterinary Surgeons of Great Britain, *our examinations* differ from them in embracing a written as well as an oral and a practical part and in covering more ground in some directions, less in others. Handling of animals, hygiene, State veterinary medicine, and horse-shoeing are (for example) subjects for which we have special courses, but we have as yet no distinct classes in microscopical work. This latter may in the near future demand serious consideration in consequence of its important bearings on scientific veterinary medicine; a bacteriological laboratory is especially required and will prove of much value; I am considering how best to organise one. The absence of study with the microscope as an independent branch and the deficient *veterinary* strength of our teaching staff are the only grounds on which the Royal College of Veterinary Surgeons can refuse to recognise our diploma as a "Colonial" one—a matter which has not been even yet settled. During my absence on sick leave in Europe, after securing such increased professional status as passing the Fellowship Examination implies, I constantly in person and by letter pushed on this question of recognition of the Bombay Veterinary College. But, it having been absorbed in the general question of recognition of foreign and colonial degrees, the information to be collected by the Council of the Royal College of Veterinary Surgeons was so considerable and from such distant sources that no conclusions have been arrived at this year. I am still periodically reminding the Royal College of Veterinary Surgeons, and Dr. Nariman, who is now a qualified Bombay veterinarian, has applied to that body for information as to the terms on which he will be admitted to its Diploma Examinations.

9. The subject of conditions of tenure of *free studentship* has been dealt with by the Committee. Seven out of the 15 Government and Municipality free students obtained their pass into Class C, 4 are now in Class B, and 4 in Class A; of the latter 2 are students only in name, and recommendations have been submitted to Government as to their removal from our rolls, and as to future prompt elimination of non-attendants. The free students have held their own fairly well in the examinations (Appendix C).

10. *Order and discipline* have been satisfactorily maintained in the College throughout the year. The *average attendance* at lectures and practical instructions has been good, especially in the senior classes. The *number of lectures, &c., delivered and conducted by the College staff* is shown in Appendix F. The Assistant Superintendent has, as now holding a veterinary qualification and on account of the considerable increase in the amount of work in the Department of Surgery and Medicine (this being the first year of Class C), this year for the first time performed his full share of the teaching, and has done it efficiently. No special course of lectures was delivered, owing to absence of the Principal. One student attended specially for practical work and 2 Transport employés were sent for practical study in the Hospital for a few months by the Commissary General, the Hospital of the Society for the Prevention of Cruelty to Animals affording facilities not elsewhere obtainable for study of diseases of cattle. No certificate or other document is given in recognition of such casual courses of study.

11. The *Superintendent's* designation was this year changed to "Principal and Professor of Veterinary Science" (Government Resolution No. 5590, Revenue Department, dated 17th August 1888). The duties of this post were performed as follows:—

1st April to 26th May 1888—Veterinary Surgeon J. H. Steel, M. R. C. V. S.
26th May to 22nd June 1888—Asst. Superintendent S. K. Nariman, M.D., &c.
22nd June to 6th March 1889—Veterinary Surgeon Thos. Pottinger, M.R.C.V.S.
6th March to 31st March 1889—Veterinary Surgeon J. H. Steel, F.R.C.V.S.

Messrs. Pottinger and Nariman, while officiating in charge, performed the duties with zeal and efficiency. I am specially indebted to the former gentleman for the trouble he took in connection with collection of arrears of fees, also for assisting me during my absence to edit the Quarterly Journal of Veterinary Science in India. While away on leave I added to my literary productions a

third Kolhápur Primer on "Breeding of Horses", and a work on Diseases of Sheep for Messrs. Longmans & Co., now in the press.

12. *Assistant Superintendent* Nariman was specially examined by the Board in April 1888 and passed successfully (in the First Class) a severe test, the programme of which had been drawn up by me and approved by the Committee of Management. The Board was well pleased with the knowledge of veterinary science shown by Dr. Nariman, and recommended him for a special license in Veterinary Science. This recommendation was approved by Government (Resolution No. 4002, Revenue Department, dated 19th June 1888). Accordingly Dr. Nariman became a Licentiate of the Bombay Veterinary College, was confirmed in his post on the staff of that College, and had the honour of being the first Indian veterinary practitioner holding a recognised high-class diploma. Government subsequently decided that he should be styled "Resident Veterinary Officer and Assistant Professor of Veterinary Science". He was, also, appointed (with certain graduates of the Royal College of Veterinary Surgeons) a Veterinary Surgeon under the Glanders Act. Dr. Nariman continues to maintain his reputation as an efficient and painstaking teacher.

13. *The Assistant Surgeons holding lectureships* at the College have continued to *lecture* very well. Their want of energy in the organization of their respective departments, of which I have elsewhere made mention, and in thoroughly identifying their interests with those of the College still exists, and will (I feel assured) continue to do so until the lecturers belong to the College Service *only*. The appointment of Assistant Surgeons to these posts was originally resorted to only because no veterinary applicants were available and purely as a make-shift. As soon as we have veterinary graduates I trust Government will see the advisability of reverting to their medical duties (where they can be of much more service to the State) such of the lecturers as have not by then been seconded for service at the College and by obtaining a veterinary qualification proved their zeal and suitability for retention in their present posts. The existing arrangement is unduly expensive, not the most efficient possible, and a constant unnecessary source of worry to Government, the Committee, and the Principal. For example, the question of remuneration of College lecturers has been considered in the current year. It was represented to Government that the Assistant Surgeons who are at present occupying these posts drew less pay than other Assistant Surgeons not specially employed, but performing ordinary duty in the districts. Government decided (No. 3027, Financial Department, dated 4th October 1888,) that these Assistant Surgeons "should receive the same emoluments as they would do if serving in the ordinary line in the Medical Department," and fixed the allowance to the Lecturer on Anatomy, who now draws Rs. 150 per mensem, whereas the Lecturer on Chemistry, (whose duties are certainly not more laborious and important,) draws Rs. 300 per mensem. Such an arrangement can only be considered provisional. I am convinced no permanent settlement can be arrived at until we have veterinary graduates in these posts solely under the control of the College authorities, and accordingly I am encouraging the present incumbents to study veterinary science and obtain the necessary qualification. This to them, as qualified medical men, cannot prove a matter of difficulty, and Assistant Surgeon Sukhia has already passed one examination and is about to appear for the final test. [Government has decided, also, that, as a *special* case under certain conditions, Assistant Surgeon Engineer shall appear for his final examination at the next sitting of the Board.]

As it is not necessary that the College lecturers should be Assistant Surgeons, nor essential that they be medical graduates, and as veterinary graduates will shortly be available, and good men perfectly fitted for the duties could be obtained from among them for Rs. 150—200 per mensem, it is obvious that the present arrangement is a more expensive one than is necessary. Having as lecturers at the College men on the Assistant Surgeons' list *and not seconded from that service* also tends to lessen efficiency, as in case of their proving unsuitable for College work through lack of zeal they have still their medical work to fall back on. Although some little has been done to organise the Anatomical and Chemical Departments during the past year, the progress made

in these respects is not such as might reasonably have been anticipated. The work of minor organization, which should be done by the lecturers, still falls on the Principal, who at times has even been opposed by inertia or inadequate effort on the part of the lecturer. I trust ere long this whole question of lecturers will be on a more satisfactory footing.

14. On the 17th July Farrier Sergeant Stanley, R.A., joined the College as *Instructor in Practical Shoeing and Farrier*. He has held the post while on furlough prior to retirement under special arrangements with the Military Department, and is reported as having done his duties well, so that the Class C men had a full course of practical shoeing this year. Unfortunately the quarters built at a cost of about Rs. 7,000 in 1887 for this official have proved most unhealthy. Mr. Stanley himself I found on my return to duty so reduced by fever as to be unfit for much work and constantly unavailable for duty, his wife had died of cholera, and all his children had been sick, so that it was necessary to send them away to sanitaria. This unfortunate state of affairs naturally renders the farrier unwilling to re-occupy quarters which have proved so ill-fated to him; they have been inspected by the Sanitary authorities, and some improved arrangements are in hand for the disposal of refuse, and so on. Last year is said to have been exceptionally trying to the health of persons employed on the estate on which the College and Hospital are situated. After the great difficulty we have had in getting a good farrier I trust we shall be able to retain Mr. Stanley, who seems able and willing to do the work well.

15. The *College Committee* met three times during the year and dealt with numerous matters in addition to the routine work; arrears of fees from students, the entrance test, lecturers' salaries questions, the appointment of a permanent examining Board, new rules as regards free students, purchase of laboratory equipment, and report of the Board of Examiners are matters which were specially dealt with. At the meeting of the 27th July it was resolved that the work of the Committee is now over, and Government should be asked to place the College under the administrative supervision of the Principal. The meetings were well attended and conducted according to regulation.

16. This being the first year of a senior or "C" Class, the organization of the *Clinical Department* for hospital work has been much improved by the use of the senior experienced students as clinical clerks and dressers. The farrier has been available to assist the clinical officers in the treatment of cases. The following is a *précis* of the *Annual Hospital Report* made by V. S. Pottinger to the Bombay Society for the Prevention of Cruelty to Animals and dated 1st January 1889:—

(*a*). This was the third annual report of the Bái Sákarbái Dinshaw Petit Hospital.

(*b*). *In-patients* numbered 1,672, against 1,019 in 1887 and 647 in 1886; this represents roughly an increase of 60 per cent. over 1887. These in-patients comprised 386 horses, 1,182 bullocks, 9 cows, 2 buffaloes, and 93 dogs, there being an increase under each heading; the dog practice (in so far as in-patients are concerned) being a new feature of the Hospital. Fatalities numbered 104 (5·88 per cent. on admissions), dogs contributing largely to this list (33 per cent. on number admitted). 882 (49·85 per cent.) were cured, 633 (55·78 per cent.) relieved, 36 (2·03 per cent.) proved incurable.

(*c*). *Out-patients* numbered 788, against 548 in 1887 and 304 in 1886. They were 358 horses, 62 bullocks, 340 dogs, and 28 other animals.

(*d*). The following additions were made to the Hospital:—

(1). The Bái Meenbái Horse Ward, presented by Mr. Noormahomed Jairazbhoy Peerbhoy.

(2). The Ajramul Cattle Ward, presented by Mr. Ajramul Hurji of Jámnagar.

(3). The Ardesir Cowasji Petit Dog Ward, presented by Bái Avábhái Merwánji Jijibhoy.

(4). The Lady Sákarbái Cattle Ward, presented by Lady Dinshaw Petit.

(5). An ornamental tablet presented by Sir Dinshaw Mánekji Petit, Knight, detailing the early history of the Institution.

Nos. 1, 2, and 3 were opened by His Excellency Lord Reay in March 1888.

Nos. 4 and 5 were opened by His Excellency Lord Lansdowne in December 1888.

The Hospital Paddock has been improved, building of an isolation ward has commenced, as also of an ornamental fountain and drinking trough; swinging partitions have been fixed in the Horse Ward No. I; whitewashing of wards and walls have been carried out thoroughly.

(*e*). Mr. K. M. Shroff (Secretary), Dr. S. K. Narimán (Resident Veterinary Officer), and Mr. J. Bhickaji Davre (Manager) have been active in promoting the interests of the Hospital.

(*f*). The need of trained animal attendants is insisted on; the danger of a public watering trough propagating glanders is pointed out; the need of a trained officer to superintend the arrangement and nursing of patients is shown; and certain recommendations of new buildings and clinical appliances are submitted.

(*g*). The statistical records show that the practice was varied and most instructive to students. Stress is laid on the fact that the number of examinations as to soundness is greater than in previous years.

The observations in this report show that during my absence in England there has been completed a revolution as regards *the relations of the College with the Hospital*, which is of benefit as relieving the College staff of some overwork from which it was beginning to suffer, though it certainly is not a change for the better as regards Hospital patients. In the first two years of the College working the Superintendent and Assistant Superintendent were, under the Hospital regulations, responsible for the proper feeding, grooming, fastening, exercise, and general management of all patients; also for the drainage, ventilation and other sanitation of the wards,—financial matters being the only affairs of the Hospital with which they had nothing to do. The original rules of the Hospital were framed by the Hospital Committee of the Society for the Prevention of Cruelty to Animals in this spirit, and a good amount of success followed the enforcement of those rules. Gradually, during the sickness and absence of the Superintendent, those rules have become a dead letter; and now, in accordance with the strict terms of the agreement between the Society for the Prevention of Cruelty to Animals and Government, "the Hospital enjoys the benefit of curative treatment to animals from the staff of the College." Under these circumstances, submission of the Hospital Report in full to Government (as in previous years) would be superfluous. It is satisfactory under these new conditions that, though not the valuable practical exemplification of perfect hygiene it might be, the Hospital continues to give good facilities for clinical and practical study by students and to progress in the estimation of the public. It is unfortunate that many most instructive and severe cases are sent away by the Hospital authorities in order that they may not swell the list of fatalities, occupy the wards overlong, or prove in other ways unsatisfactory. Finally, we are much indebted to the Society for Prevention of Cruelty to Animals for the clinical facilities its Hospital affords to our students; and I believe the College staff has performed its Hospital duties with as much success and zeal for the advancement of the interests of the Hospital as conditions would admit of.

17. The *Chemical Laboratory* has been completed and is a valuable addition to our College branches of practical study; its fittings and equipment are now also complete, and in the coming year the students shall pass through a course of practical chemistry as applied to veterinary science. I have drawn up a syllabus (shortly to be submitted to Government)—a duty which would have been performed by the Lecturer on Chemistry had he known what information on practical chemistry *veterinary* students may reasonably be expected and required to acquire in the time available.

The establishment of a *Botanical Garden* will, I hope, assume a practical form in the coming year. Some botanical expeditions to the Victoria Gardens for practical study have been made by the class. The *Forge* has, since Mr. Stanley joined, been fully used for Hospital and educational purposes. The *Dead Stock* of the College has been added to by the purchase of laboratory furniture, anatomical room fittings, and a few fresh diagrams. Three years of College work have passed, and the Anatomical Lecturer has not mounted *illustrative skeletons of the horse and ox*, a work which is now being done under my personal supervision. The *Museum room* built over the College porch was completed in the past year and is excellently adapted to the purpose required of it ; I am arranging for the display of our specimens in it. *Quarters for six resident students* are almost completed (Government Resolution, Financial Department, No. 201-C.W.—613, dated 27th March 1888; estimated cost Rs. 2,754), and I trust hereafter to show that they have proved extremely useful in securing important practical acquaintance with animal management and more careful nursing by such students as are specially appointed dressers. The *Library* has received a few additions during the past year (*vide* Appendix G.). Specially noteworthy is the presentation of works which used to belong to Inspecting Veterinary Surgeon Lamb, of the Indian Veterinary Department, Bombay Establishment. This officer, among the other important services rendered by him to the Bombay Presidency in his military capacity and at his civil duties in connection with horse-breeding operations and cattle-disease repression, took an active interest and part in the early movements for veterinary education which culminated in the establishment of this College. It is, therefore, with special satisfaction that we are able to have a shelf in our library named after this distinguished officer.

18. *Cattle-disease repression duties.*—The detailed report on the results of the experimental deputation of students to Sholápur and the usual summary of remarks on cattle-disease from this office to the Director of Land Records and Agriculture, some rules drawn up by the Principal to regulate testing of reputed cattle-disease remedies, and reports on the cattle disease at Porbandar and Dhárwár represent the work under this heading performed at the College during the past year. This office has undertaken the responsibility of supervising the landing and transfer of stud cattle for the Supreme or Local Governments of India. *The rules under the Glanders Act* (Judicial Department Resolution dated 11th June 1888) have proved most important, and numbers of cases of glanders have been detected in the stables and streets of Bombay, and dealt with as the law directs. Further importation of this loathsome disease from the Persian Gulf has again been proved, and this confirmation of the experience of last year tends to establish conclusively my position as to the urgent *necessity for portal inspection* of all animals landed or shipped at Bombay. I trust one of our first batch of graduates will be told off to this most important duty; until we check fresh introduction of the disease from without we shall not be able to free Bombay from glanders, a serious matter when we consider the wide distribution of military and police remounts and private horses from the well-known Arab stables of this city. Serious losses in the Bombay Tramway Company and in the stables resulted from the formidable horse plague "Surra", and the students had an opportunity of investigating some cases of it in the Hospital. Government Resolution No. 1457, Revenue Department, dated 21st February 1889, in reference to the establishing of Local Veterinary Hospitals promises to serve the double purpose of inducing graduates to practise in the mofussil and at the same time of securing the diffusion of scientific knowledge of cattle-diseases while rendering available locally for cattle-disease repression and other veterinary duties a number of specially trained men. No outcome seems yet to have been announced of the deliberations of last year's (1888) Delhi Conference concerning a Civil Veterinary Department, and pending such announcement all provincial higher organization for cattle-disease repression must unfortunately remain in abeyance.

19. Appendix H shows the *list of prizes, prize-takers, and donors.* It will be observed that our students are in this respect well encouraged. The thanks of the Committee of Management have been conveyed to the several donors; but the liberality of Sir D. M. Petit, Kt., and the Honourable Mr. Justice Bayley, and Inspecting Veterinary Surgeon J. H. B. Hallen is especially noteworthy.

20. Finally, in reviewing the progress of the College during 1888-89, I trust Government will consider that we have steadily carried out its aims for giving such students as desire to become veterinary practitioners an education likely to render them *practical* and useful to the country hereafter, and to be capable of dealing with cattle and horse diseases intelligently and responsibly to a degree greater than all practitioners of veterinary surgery who have hitherto been educated in India. The Board of Examiners will shortly decide which of our senior men deserve the diploma, and I feel assured there will be a fair percentage of "passes". While the year's work has been, in the main, progressive there are two matters especially which demand attention—the test for admission and the lecturers' duties and terms of appointment. These matters are at present in a state calculated to seriously prejudice our future work and I hope will be placed on a more satisfactory footing in the coming year.

The general scheme of College work as originally laid down has now been brought into full action and has answered excellently; elaboration of its details has to be attended to in coming years. His Excellency the present Viceroy when he first arrived in India was pleased to inspect the College with the Hospital for Animals and I am glad to find it recorded that he was favourably impressed with the utility and efficiency of the joint Institutions.

I have the honour to be,

Sir,

Your most obedient Servant,

JOHN HENRY STEEL,

Principal, B.V.C.

APPENDIX A.

Results of the April 1888 Examinations, Bombay Veterinary College.

Examination.	1st Class.	2nd Class.	Pass.	Total Candidates.		Percentage of Passes.	Remarks.
				Examined.	Passed.		
1st Professional	2	7	8	27	17	63	
2nd ,, (Ordinary) ...	5	13	7	36	25	70	
,, (Special) ...	...	1	...	1	1	100	Assistant Surgeon Sukhia.
Special License	1	...	...	1	1	100	Lecturer on Anatomy&c. Dr. Nariman, Assistant Superintendent, &c.
Total ...	8	21	15	65	44	68	

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APPENDIX B.

Table of Students showing number and distribution for the year 1888-89.

Caste.	Term I.					Term II.					Total.	Remarks.
	Paying.	Native States.	Private free.	Government free.	Municipal free.	Paying.	Native States.	Private free.	Government free.	Municipal free.		
Class C.												
Pársi	10	...	1	3	2	...	...	...	...	...	16	
Hindu	3	6	...	1	...	...	...	...	...	...	10	Joshi from paying student became a State student.
Mahomedan ...	...	1	...	...	...	...	...	...	...	...	1	
Jew	...	...	...	1	...	...	...	...	...	...	1	
Total ...	13	7	1	5	2	...	...	...	...	...	28	
Class B.												
Pársi	3	...	...	3	...	...	...	...	...	...	6	
Hindu	2	11	...	...	...	...	...	...	...	...	13	
Mahomedan ...	...	2	...	...	...	...	...	...	...	...	2	
Portuguese ...	5	...	...	1	...	...	...	...	...	...	6	Quadros elected a free student in place of Kamlakar.
European and Eurasian.	3	...	...	...	...	...	...	...	...	...	3	
Total ...	13	13	...	4	...	...	...	...	...	...	30	
Class A.												
Pársi	2	...	...	...	...	(—1)	...	...	...	...	1	Commissariatwala retired in Term 2.
Hindu	3	3	...	2	1	...	...	...	...	...	9	
Mahomedan ...	...	1	...	1	...	...	...	...	...	...	2	Kamlakar not included, was elected a free student, but did not attend.
Portuguese ...	4	...	...	...	...	...	...	...	...	...	4	
European and Eurasian.	1	...	...	...	...	...	...	...	...	...	1	
Total ...	10	4	...	3	1	(—1)	...	...	...	...	17	
Grand Total ...	36	24	1	12	3	(—1)	...	...	...	...	75	

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APPENDIX C.

Distribution of Government Free Students, 1st April 1889.

Position.	Government.	Municipal.	Total	Remarks.
Passed 2nd Examination in April 1888 ...	5	2	7	
Remaining in Class B	2	.....	2	
Passed 1st Examination into Class B in April 1888.	2	.....	2	
Remaining in Class A	3	1	4	Of these 3 are students only in name.
Total ...	12	3	15	

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APPENDIX D.

Showing Caste and Number of Students from Native States, &c., Bombay Veterinary College, 1888-89.

Class.	Province, Presidency, or State.	Number of Hindus.	Number of Mahomedans.	Remarks.
C ...	Central Provinces	2	.....	
	Berárs, Nizám's State	1	.....	
	Porbandar State	1	.....	Fresh appointment.
	Madras Presidency	1	.....	Do.
	Baroda State	1	1	
B ...	Baroda State	2	.....	
	Sángli State	1	.....	
	Berárs, Nizám's State	3	1	
	Kolhápur State	2	.....	
	Gondal State	1	.....	
	Jámnagar State...	1	.....	
	Junágad State	1	.....	
	Sávantvádi State	...	1	
A ...	Berárs, Nizám's State	1	.....	
	Junágad State	1	.....	
	Bhávnagar State	1	.....	
	Wadhwán State	.....	1	Do.
3	.....	20	4	

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APPENDIX E.

Financial Statement, 1888-89.

BALANCE SHEET FOR THE YEAR 1888-89.

Items of Expenditure.	Rs.	a.	p.	Items of Income.	Rs.	a.	p.	Remarks.
1. Cost of teaching staff ...	21,480	12	1	Fees for 1886-87 (arrears).				See below.
2. Do. establishment...	1,306	8	5					
3. Contingent expenditure.	1,226	1	1	Fees for 1887-88 (arrears).				Do.
4. Dead stock	747	11	3					
5. Scholarships	900	0	0	Fees for 1888-89 (current).				Do.
6. Building charges ...	.....							
7. Examiners' fees ...	278	2	6	[Extras (from a casual student).]	15	0	0	Do.
				Total amount paid by the Veterinary College.	4,585	0	0	*Vide* Accountant-General's Return.
				Add Municipality grant	2,500	0	0	
Total ...	25,939	3	3	Total ...	7,085	0	0	

Cost to Government: balance of expenditure over income—Rs. 18,854-3-3.

Return of fees received from 15th April 1888 to 1st April 1889 :—

						Bad debts or still due.
For 1886-87 (arrears) ...	Rs.	90	arrears	Rs.	1,290 ...	330†
„ 1887-88 („) ...	„	1,200				420†
„ 1888-89 (current) ...	„	2,985*		„	2,985 ...	660‡
Total ...			...Rs.		4,275 ...	1,410

Total unobtained balance ...Rs. 750

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* Including one fee from a casual student. † As reported to Government. ‡ Since received.

APPENDIX F.

Return of Lectures, Demonstrations, &c., delivered and conducted at the Bombay Veterinary College in the year 1888-89.

No.	Subject.	Officer.	Class A.									Class B.									Class C.									Grand Total.
			June.	July.	August.	November.	December.	January.	February.	March.	Total.	June.	July.	August.	November.	December.	January.	February.	March.	Total.	June.	July.	August.	November.	December.	January.	February.	March.	Total.	
1	Medicine and Surgery (Horse)	Principal	...	...	...	...	...	...	...	...	...	8	16	15	15	8	15	14	15	101	...	12	15	12	6	11	10	22	88	189
2	Clinical, and Theoretical Shoeing	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	14	19	8	17	7	10	9	89	89
3	Demonstrations	Do.	1	8	8	7	6	7	6	7	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
4	Hospital Practice	Principal assisted by Resident Officer.	...	...	...	...	...	...	...	...	...	12	25	26	23	18	24	24	24	176	12	25	26	23	18	24	24	24	176	352
5	Sanitary Science	Resident Veterinary Officer.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	6	5	2	4	8	...	31	31
6	Therapeutics	Do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	4	2	4	1	...	17	17
7	Hygiene	Do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	5	3	2	5	2	...	23	23
8	Obstetrics	Do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	4	6	7	6	4	3	35	35
9	Medicine and Surgery (Ox).	Do. ...	...	...	...	...	...	...	...	...	...	5	4	5	4	4	4	4	...	30	7	8	8	7	6	7	8	...	51	81
10	Anatomy	Lecturer on Anatomy ...	7	13	14	9	11	9	12	10	85	8	14	13	18	13	10	16	14	106	...	...	...	...	...	...	...	...	...	191
11	Physiology	Do. ...	2	4	5	4	2	4	4	4	29	4	7	8	7	8	8	7	7	56	...	...	...	...	...	...	...	...	...	85
12	Dissections	Do. ...	...	...	...	...	...	...	...	...	...	...	*15	*13	*25	*6	*19	*16	*7	*99	...	...	...	...	...	...	...	...	...	99
13	Chemistry	Lecturer on Chemistry ...	7	19	19	15	11	17	16	15	119	1	4	5	5	5	5	7	5	37	...	...	...	...	...	...	...	...	...	156
14	Botany, Materia Medica, &c.	Do. ...	7	14	18	19	11	18	20	18	125	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	125
15	Practical Shoeing	Instructor in Shoeing ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	...	14	...	...	30	30
16	Clinical	Resident Veterinary Officer.	2	4	5	4	3	4	2	...	24	...	...	...	...	...	...	...	...	...	2	12	11	10	6	8	6	5	60	84
		Total ...	26	62	69	58	44	59	60	54	432	33	85	85	97	62*	83	88	72	605	31	84	96	94	66	90	73	63	600	1,637

* Hours work registered.

N.B.—This table represents the number of instructions (generally occupying approximately one hour each) actually received by the students in their respective classes. It is not an accurate guage of the actual amount of work done by eac officer, for sometimes two classes are taken simultaneously.

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APPENDIX G.

Return of the Number and Nature of Books added to the Library in 1888-89.

No.	Name of Class.	Purchased.	Presented.	Obtained by Exchange.	Total.	Remarks.
I	Chemistry	1	...	...	1	
II	Botany	5	3	...	8	
III	Materia Medica, Pharmacy, &c. ...	6	3	...	9	
IV	Veterinary Surgery and Medicine.	5	25	...	30	
V	Diseases and Management of Dogs	1	1	...	2	
VI	Anatomy and Zoology	7	5	...	12	
VII	Physiology...	4	4	...	8	
VIII	Sanitary Science, &c.	...	...	...	...	
IX	Animal Management	14	15	...	29	
X	Journals and Reports	...	30	...	30	
XI	Government Reports	...	17	...	17	
XII	Miscellaneous	1	15	...	16	
	Total ...	44	118	...	162	
	In Library last year ...	218	195	10	423	
	Total Books now in Library ...	262	313	10	585	

25th May 1889.

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APPENDIX H.

Return of Prizes.

No.	Subject.	Nature.	Value.	Successful Candidate in 1888-89.	Remarks.
			Rs.		
1*	Handling of Animals	A Free Studentship... ...	60	Mahomed Shamsudin ...	Mr. Steel's prize (1).
2*	Practical Anatomy B.	Text Books for Class C. ...	58	J. K. Batlivala	Mr. Steel's prize (2).
3*	First in Professional Examination.	Pocket Case of Veterinary Instruments.	56	J. K. Batlivala	Sir D. M. Petit's prize in future.
4*	Second in Professional Examination.	A Clinical Thermometer ...	25	Savardikar	Honourable Mr. Justice Bayley's prize (1).
5*	Clinical Records	A Silver Medal	15	Aria	Mr. Steel's prize (3).
6*	Essay on a professional subject.	Professional Books	32	Dhakmarvala...	Mr. J. K. Grainger's prize in future.
7*	*Post-mortem* Records	A Clinical Thermometer ...	25	H. S. Batlivala	Honourable Mr. Justice Bayley's prize (2).
8	Consolation Essay's Prize No. I.	A Dissection Case	20	M. K. Desái	Mr. Steel's prize (4).
9	Consolation Essay's Prize No. II.	A Hypodermic Syringe ...	20	Maniar...	Mr. Steel's prize (5).
10*	Practical Surgery	A Medal and Surgical Instruments.	70	(For 1889-90)	Mr. Hallen's prize.
11*	Bovine Pathology	Cash	25	Do.	Dr. Nariman's prize (1).
12*	Hygiene, Sanitation, &c., and Obstetrics.	Do.	25	Do.	Dr. Nariman's prize (2).
13*	Results of Examination... ...	Government Scholarships (15).	60 (each)	Class B.—Batlivala J. K. Aria, Vakharia V., Patel V. D., Doctor, Abhyankar, Maniar, Bhat J. K., Dubash, Patel D. N. Class A.—Savardikar, Kshirsagar, Kulkarni, Shamsudin, Albuquerque.	
		Total approximate value ...	1,331		

* Offered for 1889-90.

25th May 1889.

JOHN HENRY STEEL, V.S.,
Principal, Bombay Veterinary College.

No. 6113.

REVENUE DEPARTMENT.

Bombay Castle, 20th August 1889.

Letter from the Principal, Bombay Veterinary College, No. 391, dated 25th May 1889—Submitting for information the third annual report of the College dealing with transactions of the official year 1888-89.

RESOLUTION.—The Annual Report of the Bombay Veterinary College for the year 1888-89 shows that there was a falling off in the number of students attending that institution during the year. After the Second Professional Examination which was held in April and May 1888 by the Special Board appointed by Government and in which the percentage of successful candidates was satisfactory the number of students at the College was 80. At the end of the year under review it had fallen to 75. The decrease is not a very large one and Government consider that it may well be accounted for on the first ground suggested by Mr. Steel, namely, the re-action after the enthusiasm with which the establishment of the College was greeted. It was only to be expected that many students would join such an institution more with a view to seeing how their prospects might be improved by connection with it than with the fixed intention of prosecuting their studies there. It is satisfactory to notice that the number of students sent by Native States has increased from 21 to 24 and during the year under review one student has been sent by the Madras Government. He had performed veterinary duties under that Government and was as a special case admitted at once to Class C and allowed to study for his diploma. The Native States which sent up new men were Porbandar and Wadhwán.

The number of students who presented themselves for examination during the year was 65, and of these 44, or 68 per cent., were successful. Of the total number 27 presented themselves for the First Professional Examination and 17 passed, 36 for the Second Professional (ordinary) and 25 passed, 1 for the Second Professional (special) and 1 for Examination by Special License and both were successful. The gentleman who was examined by Special License was Dr. Narimán, who passed with credit and who has since been confirmed in his post on the staff of the College.

2. Two of the questions regarding the working of the College which in Mr. Steel's opinion call for special attention are the test for admission and the lecturers' duties and terms of appointment. With reference to the first it appears that Mr. Steel is not in favour of insisting on students having matriculated before entrance into the College, and Government have already sanctioned the re-establishment of the special entrance test as an alternative to the matriculation and University School Final Examinations. The connection held by Mr. Steel to exist between the question of the entrance test and that of employment for graduates is treated at some length. The former depends on the conditions under which the instruction to be obtained at the Veterinary College can be most efficiently imparted, the latter on the supply of and demand for trained veterinary practitioners, a matter as regards which Government have no responsibilities other than those of all employers of skilled labour. The question of the establishment of a Civil Veterinary Department has not yet been disposed of by the Government of India, but should such establishment be decided on it will be with a view to the benefits to be conferred on the public and not solely as a means for the employment of veterinary graduates. As regards Veterinary Hospitals and Dispensaries in the mofussil His Excellency in Council notes with satisfaction that several bodies are negotiating with a view to their establishment and that these bodies are chiefly in districts which have already had experience of the good work done by students of the College as cattle-disease inspectors.

3. As regards the question of lecturers His Excellency in Council, in view of the unsatisfactory manner in which the present system works, concurs with Mr. Steel in looking on it as only provisional. No permanent arrangements which would give satisfaction can however be made until the posts are filled by qualified veterinary graduates whose interests will be bound up with those of the College and whose appointment will lead to economy and to increased

efficiency. Mr. Steel's proposal that three selected graduates should be appointed temporary College and Hospital Assistants would have received the favourable consideration of Government had it not been that he had not made any adequate provision for his scheme in his Budget Estimates for 1889-90. The matter should be re-submitted in time for the necessary action to be taken in 1890-91.

4. Another somewhat pressing need of the College is a bacteriological laboratory so as to enable the management to institute distinct classes for microscopic work which are necessary in order to obtain the recognition by the Royal College of Veterinary Surgeons of the diplomas of the Bombay College. A separate report on this subject should be submitted.

5. The question of the remuneration of veterinary graduates employed by Local Boards, Chiefs, &c., is one as to which Government are not prepared to lay down any fixed rules. Bodies employing such men however will have to recognize that their College education and their status as graduates will entitle them to a higher rate of pay than what is looked on as sufficient for those untrained persons who now perform veterinary duties. His Excellency in Council is pleased to observe that applications for the services of graduates have been received from Municipalites, Local Boards, Native States, Native Cavalry, Transport, Police, and Provincial Governments. The total number of applications received should have been stated and it should have been reported what steps have been taken to comply with them.

6. The Financial Statement submitted by Mr. Steel as Appendix E is so entirely unintelligible as to lead Government to believe that the Committee have not prescribed a form of balance sheet as they were requested to do in the Resolution reviewing last year's report. In the first place the sums received in payment of fees, both for past and current years, have been omitted from the statement though given separately below and secondly the total has been wrongly calculated, Rs. 15 (extras from a casual student) having been omitted. It is not understood what is meant by "total amount paid by the Veterinary College," as an item on the receipt side of the balance sheet unless it refers to the amount paid by the Veterinary College to the Accountant General to its own credit. Further the statement has been miscalled a balance sheet, for no balance has been struck. The special attention of the Principal should be drawn to the exceedingly inaccurate way in which these accounts have been presented. It is impossible to say from the so-called balance sheet whether the income of the College was Rs. 7,085 + Rs. 15 + Rs. 4,275 or only Rs. 7,085. The latter amount is that mentioned in the body of the report. The cost to Government is given as Rs. 18,854-3-3, but the correctness of this statement cannot be ascertained from the report, nor can a comparison be made with last year's figures. In future the figures for the year under report and those for the preceding year should be shown for purposes of comparison. It is not satisfactory to find that the arrears of fees for 1886-87 and 1887-88 still amount to Rs. 750. During the year Rs. 540 only due for those years were recovered and Rs. 660 have been realized since the close of the year on account of the fees for 1888-89. It should be reported how much of the outstanding balance is considered irrecoverable and the reasons for its being regarded as such should be detailed. The orders recently issued by Government as to pre-payment of fees should in future be strictly adhered to.

7. His Excellency in Council is pleased to observe that the appointment of a permanent Board of Examiners made in July 1888 is regarded with satisfaction by the teaching authorities of the College. The rules concerning examinations which have been submitted for the approval of Government will be dealt with in a separate Resolution.

8. There was no change during the year in the number of free-students, but Mr. Steel has recommended that the names of two be struck off on account of non-attendance. All did fairly well in the examination. One student attended specially for practical work and two transport employés were sent for practical study in the Hospital by the Commissary General.

9. His Excellency in Council notices with much regret that the new quarters built for the Instructor in Practical Shoeing and Farriery were so insanitary as to cause serious injury to the health of Mr. Stanley the newly appointed Instructor and of his family. It is hoped that the arrangements now

in progress will result in the improvement of the sanitary condition of the quarters. The question of placing the College under the administrative supervision of the Principal will be disposed of hereafter. His Excellency in Council is pleased to notice that the Chemical Laboratory has been completed and gives satisfaction. The quarters for resident students are approaching completion. The College is to be congratulated on the additions to its library received during the year under review.

10. The question of checking the import of diseased horses into Bombay is one of the first importance and His Excellency in Council is glad to observe that Mr. Steel fully recognizes this fact and has undertaken the responsibility of supervising the landing and transfer of stud cattle for the supreme or local Governments. It is satisfactory to note that the rules under the Glanders Act which have been availed of many times during the year have been most useful and have greatly aided the object which they were framed to assist. During the year some students were deputed to Sholápur to gain experience in cattle-disease and the result of their work was reported to the Director of Land Records and Agriculture.

11. During the year under review the connection between the Veterinary College and the Bái Sákarbái Dinsha Petit Hospital became for some unexplained reason less close than before and the Principal submits only a brief resumé of the main features of the report of the working of the latter institution. From this it appears that the number of patients continues to increase, and that several new wards were added through the liberality of various donors.

12. The fulness with which Mr. Steel has discussed the many questions of interest to the College under his charge shews that his zeal for its success has in no way diminished during the year under review.

13. The attention of the Judicial and Military Departments should be called to the suggestions made under (*d*) and (*f*) and (*e*) of Clause 4 of paragraph 4 of the report.

J. De C. ATKINS,
Acting Under Secretary to Government.

To

The Principal, Bombay Veterinary College,
The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
The Commissioner in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Director of Land Records and Agriculture,
The Superintendent, Horse-Breeding Operations,
The Director of Public Instruction,
The Political Agent, Káthiáwár,
The Political Agent, Cutch,
The Political Agent, Kolhápur and Southern Marátha Country,
The Political Agent, Mahi Kántha,
The Political Superintendent, Pálanpur,
The Political Superintendent, Sávantvádi,
The Political Resident, Aden,
The Municipal Commissioner for the City of Bombay,
The Accountant General,
The Judicial Department of the Secretariat,
The Military Department of the Secretariat,
The Political Department of the Secretariat,
The Educational Department of the Secretariat.

} With copies of the report.

The Government of India,
The Secretary of State for India.

} By letter.

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

AND OF THE

BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1889-90.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1890.

[Price—3¼ Annas.]

BOMBAY BRANCH
OF THE
Royal Asiatic Society.
CLASS

REPORT

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FOR THE YEAR 1889-90

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

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Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1890.

No. 522 OF 1890.

From

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College;

To

THE SECRETARY TO GOVERNMENT,
Revenue Department.

Bombay Veterinary College,
Parel, dated 25th of May 1890.

SIR,

I have the honour to present this the fourth Annual Report of the Bombay Veterinary College. In accordance with the precedent of last year I have given a summary of the Annual Report of the Bai Sakarbai Dinshaw Manokji Petit Hospital for Animals in one of the paragraphs under the heading "Clinical Teaching of Students." The hospital not being under Government requires notice here only in this manner, although I furnish every year to the Committee of the Society for the Prevention of Cruelty to Animals a report in the hope of keeping their hospital as systematic in its working as is compatible with its constitution.

2. In 1888-89 there were, on 1st April, 75 students on the College rolls; 11 fresh men entered and 37 retired or left the College for various reasons (including Mr. C. King, a senior student of much promise, who died in September 1889). The strength in students was especially reduced by the results of the Professional Examinations in May when 25 candidates obtained the diploma of "Graduate, Bombay Veterinary College," and one member of the College staff, Assistant Surgeon Sukhia, L.M. & S., became a "Licentiate in Veterinary Science." The results of the examinations are shown in Appendix A and the changes in number of students in Appendix B. It will be observed that there was a fall in the number of students to 49. This is due to paucity of entries,* number of Graduates, and retirements of men who thought either the tests too severe or the prospects of Graduates not tempting enough. Through the prompt action of Government in deciding not to strictly adhere to the Matriculation of the University as essential for admission (*see* Government Resolution, Revenue Department, No. 3854, dated 27th May 1889), we were enabled to admit some good men who would otherwise have been excluded; but it is to be regretted that some applicants for admission had been diverted to other lines of work before the requisite action could be taken. The falling off in number of students is not to be considered altogether a disadvantage; indeed in some respects it is for the better, as all who graduate at the College must find employment and the position they have to attain is something altogether novel, so that (as will be shown hereafter) the market must not be glutted with Graduates if this can possibly be avoided. However, it is to be hoped that a fair number of entries in the coming year will compensate for the departures which we anticipate.

* Absolute not relative:
Entries of men who remained at College.

First year 69.	Second year 19.
Third year 6.	Fourth year 11.

The examinations were conducted by the Government Board of Veterinary Examiners in accordance with the regulations of the College. At the meeting of the Board held on 7th May 1889, some suggestions were drawn up as to system of marking, sub-division of subjects, &c., and subsequently these were approved by Government (*see* Government Resolution, Revenue Department, No. 944, dated 4th February 1890). The appointment of a permanent Board of Examiners again answered well.

3. The Royal College of Veterinary Surgeons, at a meeting of its Council held recently, decided not to recognize as "Colonial" or "Foreign" schools

any of the institutions which had applied for recognition (ours among the number). In the absence of official notification of this fact I am compelled to draw the conclusion from the published reports of the debate on the subject that this decision has been based on the two grounds: *first*, a fear lest Graduates of colleges other than those of Great Britain should cut out the latter by practising in Great Britain; *second*, alleged insufficiency of Maticulation tests in the Colonial and Foreign institutions. As it is evident the latter could have been met by imposing on candidates a general educational test of the required severity, or by accepting, say, only those who had matriculated at a University and so passed a stiffer entrance test than that of the Royal College of Veterinary Surgeons, it is evident that the first ground was the main one. It evinces a narrow-mindedness and want of confidence in the efficiency of its own Graduates, which shows clearly the necessity for a thorough overhauling of the Royal College of Veterinary Surgeons such as a large number of its leading Graduates are now loudly crying out for. I trust our College will benefit by the anticipated reform; unless it does, the necessity for a higher qualification in Veterinary Science than that of Graduate of the Bombay Veterinary College will in due course be felt here and have to be met locally. It is noteworthy that in the past year veterinary subjects have for the first time obtained a footing in the Bombay University as a branch of work for the new diploma of Agriculture.

The Government and Municipality Free Students are dealt with in Appendix C. It will be observed that the proportion of the men originally admitted as free students who graduated was 6 out of 15, showing that some three-fifths of the number failed at one or more examinations or left the College. New rules concerning free students were brought to bear after submission to Government for approval, which was granted. They were directed specially to the prompt filling of any vacancies which may occur.

The *Native State and Provinces' Students* are less numerous than last year. The causes of this are the same, in the main, as influenced the total number of students: thus six graduated (from the Central Provinces two, Berárs one; Baroda two, Madras one), and the Porbandar State withdrew its scholarship. There were two students admitted under this heading.

It is highly gratifying that in the current year students have been admitted from Sind. This is an outcome of the action taken by Government, as shown in its Resolution, Revenue Department, No. 5607, dated 3rd August 1889. (*See* Appendix D. for Return of Native States' and Provinces' Students).

The conditions of Sind are very special as regards veterinary matters, but the important field which it presents for horse-breeding and which has undergone remarkable extension lately, the proposed improvement of its flocks, and the undoubted value of its race of cattle render the veterinary development of Sind a matter of special interest at present and certainly of great importance as regards the future.

4. Progress of the College is so intimately connected with *employment of Graduates* that we must dwell a little on this matter. I found that there was at first much difficulty in placing these men, because many valued their services too highly; some (especially Pársis) were hampered by family ties in Bombay and could not take appointments up-country; others exhibited a want of enterprize and of knowledge as to what sort of posts a veterinarian was fitted for; again applicants frequently thought they would get a man of the Salutri stamp on Rs. 15 per mensem—an article we do not supply. These difficulties are now to an extent tided over. At the time of writing this report I find that of the 25 men who in 1889 obtained their diplomas 2 remain unemployed, and of them each has been offered employment; but one is so much over-impressed with his own worth that he refused an offer of some Rs. 75 to increase to Rs. 120 made him by the Bombay Tramway Company (Limited), and the other is, on account of deficiency in physique and his having passed out last on the list, especially difficult to "place." Appendix E. will show the nature of employment obtained, of salaries, and official designations. It will be observed that there are 12 in the employ of Government, directly or indirectly, 5 serving in Native States, 3 in private practice, 3 in Municipal employ, and 2 unemployed.

This record ought to prove encouraging enough to candidates for entry into the veterinary profession and to enable it to compete fairly well with other professions in solution of the important question of employment for the growing and energetic section of young men who cannot find a place in offices because they are unfit for occupations purely sedentary.

Employment for Graduates has been to me the subject of much anxious thought in the past year. Either in consequence of the habit of thought in this country or because the veterinary profession as such is quite new here, probably as the effect of both causes, almost each of the Graduates has to be "placed" by the Principal of the College, whose duties do not, therefore, end in the case of each individual on his graduation but assume a specially grave aspect then. A little reflection will show that this is not altogether surprising. It is gratifying that about twenty-five per cent. of the Graduates have shown an independent spirit, and those of them who have gone into private practice will probably, after the usual initial struggles, find themselves much better off than those who have been less independent. Yet there can be no doubt the process of veterinary education in India comprises not only the instruction of students up to the practitioner stage, but also the instruction of employers of various kinds, from rája to rayat, as to the insufficiency and harmfulness of empirical practice, whether carried on by owners or uneducated salutries, farriers, cowleaches, or any one else devoid of professional education. To add to the difficulty in this matter many of the empirics are men who, by years of experience, and as the outcome of some surface education, have much practical skill in dealing with *routine* cases and some dim idea of the why and wherefore of practice. At any rate they, if less sure in diagnosis, are more prompt and confident in manner than many of the Graduates fresh from College, and so inspire owners with an undue belief in them. As we cannot put old heads on young shoulders during three years at College, we must trust to time to improve our Graduates in promptitude of practice and calm confidence in results of proper treatment; in the meanwhile we must replace empirics by Graduates where we can, and exert ourselves to the utmost to make *practical* men out of candidates who, before they enter the College, have seldom had anything to do with either horse or ox. Out of all the Graduates placed in the past year not one has displaced a qualified Veterinary Practitioner, that is, each is a distinct gain in the professional strength of the country and in its efficiency to meet emergencies of war and disease. This throwing of light into the dark places of India must be a source of gratification to Government and the public, and of encouragement to the College officers. On every side evidences of the necessity for it constantly crop up.

As regards appointments for Graduates, we have to note with satisfaction that His Highness the Thákor Sáheb of Morvi has given the lead in securing a good man on liberal terms for his State stables, and that the Bikaneer Darbár has engaged a veterinarian for its troops who will mainly have to treat camels. There has been in some cases a little tendency of the States not to employ their own men on graduation; but I believe they are now seeing the advisability of doing so. A good man has, under orders of the Government of India, been sent to the Andamans,* and one has been supplied to the Military Police of Upper Burma. Bombay, Bangalore, and Surat have engaged Graduates for municipal duties, and Ahmedabad also has under consideration the employment of one. Penang, Burma, Ceylon, and other places have been in correspondence with me concerning our men. Thus the influence of the College is over a wide range. The Government Departments, either through want of funds or from other causes, are slow to employ Graduates. The late Colonel Heyland made a bid for a man for the First Lancers, but could not make the post attractive enough; the Transport Department has applied for a man but cannot offer more than Rs. 25 per mensem which will not tempt a man who can earn Rs. 40 per mensem as a clerk but who has graduated with a view to improve his position. The Police is willing to employ men, but has no vacancies. The Remount Department needed one for its new depôt at Ahmednagar, but, I believe, ended by placing a farrier in veterinary charge. The Horse Breeding Operations Department is inclined to make use of Graduates, and I am led to believe will shortly submit proposals to Government on the subject. Those Graduates who are in charge of the local Veterinary Hospitals and Dispensaries are under

* He has since returned after not proving a thorough success though no fault was found with his *professional* abilities.

a sort of loose control by the Agricultural Department with which the College has most cordial relations. Indeed when it is fully recognized by all concerned that *Veterinary Science* comprises a knowledge of domesticated animals of all kinds in all their relations *during health as well as during disease*, the fact that the Veterinary and Agricultural Departments have common interests in much of their work will be fully appreciated.

The College still maintains its position as the only one of the kind in India, and a recent Resolution of the Government of India that centres of higher veterinary education at Lahore (Vernacular) and Bombay (English) will for some time suffice for the requirements of the country promise to secure for the College its exceptional position for some time. Lahore Veterinary School and the Bombay Veterinary College have each their own sphere. The latter, however, promises to become a normal school of Veterinary Science from which instructors in minor schools will come. Thus we must make a few of our Graduates very high class men suited for special appointments considerably above the average in emoluments and can offer a good opening to a limited number of Matriculates who after graduation have put in a Post-Graduate course of one year as Assistant Veterinary Officers. Such men should meet any requirements and keep up the reputation of our College. We have already, it will be noted, Graduates holding posts as Veterinary Instructors in Nágpur and Madras on good salaries and with good position. I have just received an application for a similar man for Burma. Another noteworthy feature is the fact that our College is beginning to be recognized as affording an opening for English young men of country education; men who thus enter the veterinary profession are excellent material and ought, in due course, to prove valuable to Government.

5. Last year I recorded a marked falling off in the number of entries; this year there has been not much change for the better. Although this means small classes for a year or two, I do not consider it as giving grounds for serious doubt of the future welfare of the College. The causes have now been removed, so I look forward to more entries in the coming year. On enquiry I find we are going through the experience of other special colleges and have yet to inspire public confidence by proving that our education is not a drug in the market; I believe we are doing so gradually but surely. There is a useful element in the country of men who have become empirical practitioners because they had no facilities in India for systematic veterinary studies, men who have attended the veterinary courses at the Agricultural and Army Veterinary Schools and have been practising with the smattering of knowledge thus obtained. It is my endeavour to attract such men to the College by giving them concessions for their previous studies and experience, and this policy has been supported by the College Committee and approved by Government. We have thus drawn into the veterinary profession some men who in due course would have become formidable opponents to our Graduates. Thus I am gradually paving the way to the time when the veterinary profession can ask Government for an Act to recognize it and to protect the public against empiricism. This must come in due course, though it may as yet be in the distant future. European countries with advanced legislative systems fully recognize that a Veterinary Act is an efficient means of benefiting the public and at the same time it is an encouragement to the profession. The latter has a right to legal recognition; although it may be freely and unreservedly accepted by all that the veterinary profession is for the public not the public for the profession. In expanding its veterinary organization a country is making reproductice expenditvre.

6. The local Veterinary Hospitals and Dispensaries which were initiated during the past year in Ahmedabad, Dhulia, Násik, and Nadiád seem to have answered their purpose well and to have met a real want of the country. It is to be hoped they will be increased in number in the coming and future years. Reports of the efficiency of the Graduates in charge have been satisfactory, and visits which I casually made to three of them showed me the records, instruments, and medicines in good order and led me to believe the veterinary officers in charge did their work. Government apparently wishes all official connection with them to be through the Director of Agriculture and possibly looks on them as a means of testing the efficiency of my instruction of Graduates, but I cannot

help feeling that to secure the full benefit to the country from them there should be some *veterinary* supervision. This will be secured when, in due course, the proposed scheme for a Civil Veterinary Department is brought into force, as I presume it will be before long. Until then the hospitals remain an interesting evidence of what can be done by local effort. This effort is in most cases that of the Local Fund Board, but in Násik it is supplemented by the local branch of the Society for the Prevention of Cruelty to Animals under its energetic Secretary, Sister Rosalie. In due course a large number of cases of disease in cattle, non-communicable as well as communicable, will be dealt with by these hospitals and much empirical barbarity be prevented. Surat, Sholápur, Belgaum, and Dhárwár, some time ago made enquiries about the cost of a Graduate and possibly might be persuaded to start hospitals, or at least dispensaries, and it would be well if especially the Central and the Southern Divisions took action in this useful direction. The cost is not great and the benefit should be considerable, if only by the flood of light which will, in due course, be thrown on the veterinary requirements of the country. Some might be very easily started, thus it would be a simple matter to convert the College of Science Veterinary Hospital at Poona into a local Veterinary Hospital and Dispensary with a view to securing it an increased practice and a grant from Local Funds. Surat Hospital was presented with a considerable sum of money, but owing to want of promptitude in accepting and utilizing it, the donor withdrew the grant. Násik has been promised a good donation for the building fund of its hospital. These facts show that this movement has a considerable amount of interest in the public mind.

It is a pleasure to me to record that His Highness the Gáikwár of Baroda has started similar hospitals at two places in his dominions—Visanagar and Dabhoi —and has posted Graduates in charge. It is to be hoped this enlightened policy will lead other Princes to follow his good example, and that His Highness will increase the number of hospitals and so extend the benefits of Veterinary Science widely throughout his dominions.

As has been already hinted, some States show a tendency to leave their scholars to chance after graduation, instead of employing them; I cannot too often insist that this is false economy, the best plan being to use to the utmost in their studs, stables, and paddocks, and so on, the men whom it has cost money to educate. I want to impress fully on the minds of the Political Officers, Diváns, and Chiefs the advisability of carrying out the policy expounded by Lord Reay in delivering the diplomas in March last that each State should have in it at least one veterinarian scientifically educated; this may be brought about either—

(*a*) by employing a Graduate, the cost of which is some Rs. 80 per mensem, or

(*b*) by sending to the College a young man of good physique and general education for three or four years at a monthly cost of some Rs. 40 on an engagement to serve the State for a fixed period after graduation.

I need scarcely insist that unless students have good physique and a fair general education our difficulty in converting them into veterinarians is much increased and the final results are the less liable to prove satisfactory.

As I have elsewhere insisted, uniformity in veterinary inspection for repression of communicable diseases will be absolutely essential to secure thorough success in India. There can be no doubt that in the near future British India, like other countries influenced by modern civilization, will have its Civil Veterinary Department, but the efforts of this department will need the aid which educated veterinarians of Native States can give, or those efforts will be frequently thwarted by disease smuggling. Such being the case, it behoves the officers of Government to—

(*a*) on every suitable opportunity impress on the Princes and Chiefs the necessity for veterinary care of their animals;

(*b*) have ready a body of men fully educated with a view to their being fit to be entrusted with these important duties;

(*c*) make education of State students as inexpensive and as thorough as possible.

I believe this programme is now being carried out in its entirety in the Bombay Presidency, but it might be more so in other parts of India; and those which mainly concern us are the States on the Bombay Presidency frontier—Mysore, Hyderabad, Central India, Rájputána, &c., can do us much mischief (and I have reason to believe in some cases do so now) through conveyance into the Presidency of disease which prevails in them among cattle.

7. Although disease of cattle of a serious nature has been infrequent during the last two years, it is to be feared that the prolonged shortness of fodder during that time will be followed by disease prevalence. Bombay recently has had a slight outbreak of rinderpest, and more serious ones have been reported from Bhadgaon, Nágpur, Kámpti, and the Morvi State. In the latter camels are said to have suffered from this fell disorder. One good result which I look forward to as an outcome of diffusion of our Graduates is the increase of our knowledge of the diseases of that useful creature the camel. We know but little of the pathology of this valuable animal, but that little I have endeavoured to summarise in a series of papers contributed to the Quarterly Journal of Veterinary Science in India, which will shortly appear in book form as Volume III. of my series of Indian Veterinary Manuals.

Foot and mouth disease remains universally prevalent but seems to have been specially severe in Ahmedabad, where (under orders from the Collector) Mr. J. K. Bhatt, G.B.V.C., is reported as doing good service in dealing with it.

Anthrax has been most infrequent; and the rarity of true anthrax in this Presidency, in so far as we know, has been reported by me in connection with the Government of India enquiry as to prevalence of the disorder.

Glanders seems to always hang about Bombay and we have generally some suspicious cases in our isolation ward.* The Act has doubtless rendered its occurrence more *en evidence*, and I recently had the satisfaction of hearing an empiric complain he had little to do since he has been prevented treating cases of this contagious and incurable disorder. The control over suspects is but slight, so they are apt to be taken out of the Bombay limits—a matter for regret. No difficulty is experienced in working the clauses of the Act which compel slaughter of the affected by the Police.

* It will continue to do so until the "Arab Stables" are thoroughly overhauled and brought under Municipal or State supervision.

Rabies is a disease of which we hear a good deal; I fear it is on the increase and will sooner or later necessitate legislative measures for its repression; doubtless the new Pasteurian Laboratory in Poona will be able to do something to lessen its prevalence and importance.

A few instances have cropped up during the past year showing the need for a Veterinary Inspector for the port of Bombay.

The Principal of the College has, as hitherto, reported to Government on such veterinary questions as have been referred to him for opinion. They include—

(*a*). Outbreak of sheep and goat disease in Khándesh.

(*b*). Questions concerning importation of hides from Zanzibar.

(*c*). Organization of the Civil Veterinary Department.

8. The following extra collegiate work of a more or less public nature has been performed by the College staff:—

The Principal has published a work on Indian Veterinary Medicines, and another Kolhápur State Primer ("on Breeding and Rearing of Horses").

He has conducted an enquiry of a prolonged nature into equine relapsing fever (Surra); also into the Khándesh goat disease: he has worked as joint Honorary Secretary at the Horse and Cattle Show, Bombay; as judge at the Horse and Cattle Branches of the Nadiád Agricultural Exhibition; and has visited demi-officially the local Veterinary Hospitals and Dispensaries at Nadiád, Ahmedabad, and Násik.

The following extra collegiate lectures have been given by him :—

(*a*). A course of six on "Trivial Injuries and Diseases of Troop Horses."

(*b*). One lecture on "Science in Bombay."

(*c*). Do. "Indian Cattle."

(*d*). Do. "Camels."

(*e*). Do. "Popular results of the Horse and Cattle Show, Bombay."

The Assistant Professor and Resident Veterinary Officer investigated disease among sheep and poultry at the Bombay Pinjrapole and in the Island of Salsette. He has energetically and efficiently performed the duties of Honorary Secretary to the Bombay Veterinary Association.

9. *Consolidation of the course of instruction* and elaboration of its details was in last Annual Report mentioned as a *desideratum*; it has been attempted during the past year in several ways. Firstly, into the hospital has been introduced a system of record of cases and individual responsibility. Thus each senior student has always under him for record and dressing several cases either of horses or cattle, and his work is supervised by the clinical clerk, who carries out the treatment prescribed by the ward officer. The clinical clerks are specially selected men, each of whom receives a certificate for his services if properly rendered during a period of office; all treatment is under the ward officers who go their round once daily or more often if required. This system makes the students familiar with the routine of the ward work and gives some idea of system, which is specially necessary in the case of native students whose ideas on joining the College are rather strong as to the advisability of letting things adjust themselves with the lapse of time. Another useful piece of discipline this year was in connection with an outbreak of disease called equine relapsing fever (Surra) in the Bombay Tramway Company (Limited). The company generously offered to defray the expenses of an investigation into the nature of this serious disorder of horses, and part of the enquiry consisted in a ten days' continuous observation of certain cases, obtaining hourly records of the state of the blood, pulse, and body temperature. These records were satisfactorily obtained by the agency of volunteers from among the students, who completed an enquiry most valuable in its character and probably unprecedented as regards laboriousness and importance in veterinary annals. Selected students acted as Assistants at the Bombay Horse and Cattle Show, 1890, doing efficient work in classification, measuring, description, and mustering of the exhibits. These services are to be recognised by a diploma under orders of the Show Committee. *The system of weekly written examinations* on the work dealt with in the lecture rooms and laboratories has been introduced and strictly enforced this year and has materially increased the work of the College officers by the necessary perusal of the reply papers. There can be no doubt, however, that it is a valuable discipline, and to ensure care in its performance I introduced the system of weekly report from each teacher on the work done by him, and I set the questions on each subject myself each week; also I made the marks awarded (with the attendance records) the basis of classification of students at the end of the educational year. Brevity was insisted on in replies, verbosity being reckoned a reason for deduction of marks. On the recommendation of the College Committee Government was pleased to approve of the subjects dealt with in afternoon lectures being changed to an extent so as to cover more ground without increasing the students' work. Thus, instead of thirty lectures each on Shoeing, Obstetrics, Sanitary Science, Hygiene, and Therapeutics, we have now the following: Ten demonstrations or lectures, each on —

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
1	*Shoeing*	*Hygiene*	*Therapeutics* ...	*Obstetrics*	*Sanitary Science.*
2	Surgical Anatomy.	Practical Microscopy	Prescribing and Pharmacy Organization.	*Breeding and Rearing*	Methods of Post-mortem Examinations.
3	Surgery (Practical).	Bacteriology... ...	*Toxicology*	Examination as to Soundness.	Pathological Anatomy.

(The lecture subjects are *italicised.*)

Among the new subjects introduced I would specially draw attention to the study of poisons (Toxicology), examination as to soundness, the use of the Microscope, and Bacteriology.

Class A. men have, on my authority, now to attend daily for one hour's dispensing and compounding. Their instruction in Pharmacy and Materia Medica has hitherto been conducted by a *Medical* man, who was necessarily not thoroughly acquainted with the applications of these matters to *Veterinary* Science; to correct this weak point I (for the coming year only) intend to myself teach these subjects not only to the students but also to the Graduate who in future will have to take charge of this branch. *A Syllabus of the College course of Instruction* has been prepared by me and is now being printed. The work in each subject of each branch has been carefully mapped out not only with a view to informing examiners, students, and enquirers as to the scope of our instruction, but also for the guidance of the instructors. I had a suspicion that our lecturers at times indulged in flights of eloquence more with a view to show their brilliancy than in the hope of converting their audience into sound veterinarians. The syllabus shows there is no time for such flights and exhibitions, but an urgent necessity that the maximum amount of instruction in each subject specified be given at each lesson, the system adopted being tutorial rather than professorial. With our young instructors, whom I am anxious to convert into sound teachers and specialists, this was the more necessary. Appendix F. shows the number of instructions given, which is approximately the same as last year, *i. e.*, that prescribed by regulations—some 1,700 lectures and demonstrations in all.

10. A number of minor buildings and fittings have been supplied through the agency of the Public Works Department during the past year. They include a horse trevis and measuring shed, a bullock trevis, some cupboards for appliances appended to the operation shed, and certain minor works. These add to the efficiency of the Clinical Department, but in importance are less than the valuable concession made by Government (*vide* Government Resolution, Revenue Department, No. 7446, dated 3rd October 1889) of the Farrier's quarters to be used in future as a Pharmaceutical Laboratory. This step was necessitated by the proved unhealthiness of the quarters in question, and they have answered their new purpose most excellently, there being room for a store, a dispensary, a large compounding chamber, an office, and a washing room, besides extra store and kitchen accommodation. The students' quarters, as built by Government at a cost of Rs. 998-10-11, have proved feverish for certain portions of the year, so that students naturally refuse to reside in them. Under these circumstances I have, when possible, let them out as day studies and thus secured a part of the money anticipated by Government as annual rent; and I have obtained an indirect rent by using them as workshops in which I have had done at a cheap rate carpentering which would have been very expensive off the premises. Unhealthiness of these quarters has thus prevented my getting six resident students for direct charge of the wards and to benefit by the influences of residence; however non-residence is to an extent compensated for by the fact that living in Bombay is in itself an education to up-country students. I very much question, nevertheless, whether three years is a sufficient length of time to produce a permanent general and professional effect on the habits of thought of a native student. I have a shrewd suspicion that as I am the only European teacher with whom our students have much to do, their culture and education, general and professional, must have many mannerisms. I trust, therefore, that in due course Government will see its way to increasing the European element on the College staff. Now, the College is, I feel, too much dependent on efforts of one individual, and I want it to be on a more secure basis. It may seem strange that, holding such views, I have lately recommended replacement of the Farrier Major by a Graduate specially educated in Farriery. This is because experience has shown that it is extremely difficult, if not impossible, to get an European officer of the stamp required from the Farrier class. Old soldiers seem incapable of adapting themselves to the responsibilities of a teaching post and the freedom from the close and immediate supervision which it entails. Any addition to the professorial strength of the College must be dependent on the action taken as regards the Civil Veterinary Department, the initiation of which is imminent. I trust to be able to make proposals to Government under this heading in the coming year.

11. As regards members of the staff, His Excellency Lord Reay was good enough to honour the *Principal* by appointing him a Justice of the Peace. Dr. Nariman, the *Resident Veterinary Officer*, has efficiently performed his duties as Assistant Professor and one of the Clinical Officers of the hospital. He has exercised administrative supervision of both College and hospital during occasional brief absences of the Principal. The *Lecturers* have, in accordance with Government Resolution, Revenue Department, No. 9422, dated 14th December 1889, reverted to their medical duties. Government decided that the teachers in a Veterinary College should be Veterinary Graduates, connected with the institution and experts in the veterinary art, rather than human doctors who are merely amateur veterinarians.

The Assistant Surgeons, Engineer and Sukhia, who thus reverted, had shown themselves intelligent and able as Lecturers. Mr. Engineer this year did good service in organizing our laboratory. Two Graduates who were first and second on the pass list of 1889 have been appointed Instructors, in due course to become Lecturers, and, later on, Assistant Professors. Their promotion and increase of pay will depend on efficiency in performance of duties, on examination in their special subjects, and on length of service. I look forward with confidence to these young men becoming good and efficient officers of Government and specialists in their respective spheres of work. The scheme of reorganization which Government, on the strong recommendation of the College Committee, approved also admits the appointment of two junior Graduates in temporary posts as *Assistant Veterinary Officers.* Good men ought to be procurable for these duties, which should prove a kind of Post-Graduate course for them and secure to a number of men a longer period than the ordinary of collegiate instruction.

Farrier Major and Instructor in Practical Shoeing Stanley suffered severely from disease throughout the year; he struggled pluckily against it, but finally has been compelled to send in his resignation, as the Parel climate has proved quite incompatible with his constitution. The remarkable unhealthiness of the place we have to work in has been amply demonstrated by the prevalence of the fever among the students and staff, severe liver disorder,—all but fatal—in the case of myself and similar disease ultimately fatal in the case of Veterinary Surgeon Pottinger, my *locum tenens;* by severe disease incapacitating the Manager of the Hospital, Mr. Bhikaji; and by febrile disorder acquired by Mr. Shroff, Secretary and Treasurer of the hospital, while resident on the premises. Recently energetic efforts have been made to improve the drainage, remove undergrowth from the compound, open it up by new roads, and otherwise lessen the stagnation of the air. These measures will, I believe, prove successful. Mr. Pottinger's death was a serious blow to the College, for in him we lost an experienced and able member of the Board of Examiners whom we cannot easily replace.

I, this year, introduced a system of attendance record for teachers as well as for students; this was to counteract or record a suspected unpunctual or irregular attendance by Lecturers.

The College Committee met twice, once at Bombay and once at Poona (*see* Government Resolution, Revenue Department, No. 5670, dated 5th August 1889). This sufficed for completion of College work. The principal matters dealt with were redistribution of minor subjects, regulations for free students, redistribution of lectures.

12. Of the new buildings one of the most important is *the Sir Dinshaw Manokji Petit Patho-Bacteriological Laboratory.* This is the outcome of the liberality of the gentleman after whom it is named, and whose promotion to a Baronetcy was appropriately announced by His Excellency Lord Reay when laying the foundation-stone of the building. The objects of the laboratory are:—

(1). The instruction of veterinary students in Pathological Anatomy and Bacteriology.

(2). The increase in knowledge by original research on such diseases of animals as specially occur in India, such as bursati, kumree, surra.

(3). The original investigation of rinderpest, malignant sore throat, and other diseases of animals, especially with a view to determining means of prevention and cure.

(4). Similar investigation of glanders, tuberculosis, anthrax, and other diseases communicable from lower animals to mankind, with a view to their repression.

(5). Study of the life history of disease-producing parasites, animal and vegetable.

(6). Enquiries specially into the practicability and practical value of prophylactic vaccination for the several most important animal diseases in India.

(7). General micro-biological research.

It was at first thought the laboratory might interfere with the Pasteurian Laboratory which has recently been established at Poona. But, on my showing that on the contrary it would supplement the resources of that institution, Sir Dinshaw's munificent offer to build the laboratory was cordially accepted by Government. It will most materially add to the research and educational resources of the College and also increase its scientific status by keeping it fully up to the times. Hitherto pathological research at the College has had to be carried out in a rather haphazard manner, as in the case of a recent important investigation of Surra carried out by the Principal and on the results of which a volume will shortly be published. The laboratory will, I hope, be built in the coming year. The new isolation ward, also associated with Sir Dinshaw's name, is educationally a valuable supplement to the laboratory. In it cases of rinderpest, glanders, surra, and foot and mouth disease can find a home and be available for research of a non-vivisectional character. It will be noted that the laboratory removes one of the crying wants of the College mentioned in my last report, that is, facilities for microscopic investigation and for education in Microscopy.

13. *Clinical Teaching of Students.*—The annual report of the Bai Sakarbai Dinshaw Petit Hospital for Animals shows that in 1889, being the fourth year of hospital work, progress was made in all the more essential branches. Veterinary Surgeon Pottinger was in Clinical charge until 6th March, he was then relieved by Veterinary Surgeon Steel; the College officers and students did their clinical work efficiently.

(*a*). *In-patients* increased to 3,626 in 1889—325 over last year; of these 1,785 (against 1,672) were fresh cases, being an average of 148 *per mensem*. The number of horses, cows, buffaloes, and dogs increased, that of bullocks decreased slightly (49). The death rate increased considerably, mainly owing to losses of dogs.

(*b*). *Out-patients* fell in numbers from 768 to 755, which was attributed to the opening of the dog ward, more cattle and miscellaneous animals, but fewer dogs and horses came into this department.

(*c*). In all 2,540 animals were *treated in the hospital* against 2,460 in 1888, 1,567 in 1887, and 956 in 1886, showing a steady progress. This occurred in spite of some new regulations tending to lessen the number of patients.

(*d*). The placing of a large building by Government at my disposal for use as a *Pharmacy* was an important event to the hospital and a valuable boon which Government supplemented by the fitting of this building with dispensing conveniences.

(*e*). *The Dog Department*, started two years ago, is a source of anxiety, as the locality of the hospital has hitherto proved as unfavourable to the health of dogs as of men.

(*f*). Of new works completed in the last year may be noted—

(1). The Sir Dinshaw Manokji Petit Isolation Ward.
*(2). Trevis for horses and cattle and Measuring Stand.
*(3). Instrument cupboards in the Operation Shed.

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* Government work.

(4). The Allbless Fountain.

(5). One new road, with removal of much undergrowth.

(*g*). A large number of *wants of the hospital* have yet to be supplied and are specified.

(*h*). Owing to sickness of the Farrier, the *shoeing* has not been so thorough as it might have been. Fresh proposals are before Government under this heading.

(*i*). The services to the hospital of the Manager, Mr. B. R. Tavaria, of Mr. Shroff, and of Dr. Nariman are acknowledged. Also the indebtedness of the hospital to His Excellency the ex-Governor for substantial support in publicly opening the isolation ward and inspecting the hospital.

(*j*.). Much benefit is foreseen from the liberal donation of a *Patho-Bacteriological Laboratory* by Sir Dinshaw Manokji Petit and the consent of Government to keep it up and equip it; also from the recent reconstitution of the College clinical staff as made by Government.

(*k*). It is calculated that each student who graduated in 1889 had the opportunity of practically studying about 7,000 cases of injury and disease in the hospital before graduation, and it is urged that, therefore, the hospital fulfils amply its aim of affording a valuable school of Practical Veterinary Surgery and Medicine.

14. Order and discipline have been satisfactorily maintained during the past year.

15. The following occasional students have attended :—

(1). Mr. N. T. Metha, L.M. & S., Clinical Classes, 1st term.

(2). „ J. G. Dosi, L.M. & S. do. do.

A special course of six lectures on "Minor Injuries and Diseases of Troop Horses" was delivered this year. Twelve gentlemen, for the most part troopers and officers of the Bombay Light Horse, attended (in addition to the College students).

16. Concerning the several departments of the College the following are the principal matters needing notice :—

Anatomical.—The system of work was improved, more subjects were dissected, and some skeletons and preparations were made for the Museum.

Chemical.—Classes in Practical Chemistry were organized and a definite syllabus drawn up and worked through. The branch for analysis remains to be organized in the coming year.

Pharmaceutical.—The new building was occupied, the system of dispensing and issue of drugs, also instruction of students, improved, and a scheme for pharmaceutical experiment drawn up for action hereafter. Specimens of native drugs were added to the Museum. A course on Toxicology has been instituted.

Botanical.—Some specimens were added to the Museum, a plot of ground for growth of English and Indian grasses has been obtained in the hospital, and pot specimens of food and medical plants are being prepared.

Riding School.—I hoped to have used our Farrier Major as a Riding Master, to insure that each student before graduation shall know how to ride. For the present the suggestion that a certificate of ability to ride or evidence of such ability be called for from each candidate for the diploma is before the Committe.

The students have had a special course of instruction on *Post-Mortem Examinations and Pathological Anatomy* this year. The *post-mortems* made on fatal hospital cases and carcasses of animals sent from the Victoria Gardens, &c., have given us ample material to work on. A series of deaths from suspected poisoning of animals in the Victoria Gardens gave us some valuable specimens in Comparative Anatomy.

The *Library* has had 66 volumes added to it. These include the Nariman Testimonial of over 30 volumes purchased from subscriptions of the students. Appendix G. shows the present state of the Library.

The *Museum* has been transferred to the new building above the College porch and a rough provisional arrangement has been adopted, but I hope to improve this in the coming year and to get out an official catalogue. A fair number of specimens have been added, many of the new and most valuable of which have been presented by the Bombay Veterinary Association. A *Students' Museum and Bone Room* has been formed in the small room off the Library and the sitting room for students transferred to one of the Society's buildings which used to be the Pharmacy but was inconveniently placed for such use though admirable as a students' room, being cool and secluded.

The *Forge* has been used less than I should have liked on account of the sickness of the officer in charge. I found that to secure to the students any knowledge whatsoever of practical shoeing I had at last to myself teach them all I could.

The *Operating Shed* is now in full use. Numerous operations were performed, major and minor, and some 50 examinations as to soundness. The recent additions to this shed improved its practical value.

The *Pinjrapole* has been used by me for practical instruction of the senior students. It always supplies ample material for demonstration.

As regards *physical development*, our students have to come so far from their homes to College, and so much of their work is manual and their time is so fully occupied, that the Gymkhána has not hitherto flourished much. The sports were held as usual and some cricket matches played; but the Society for the Prevention of Cruelty to Animals unfortunately would not give us any ground for a Lawn Tennis Court or Gymnasium. However I hope they will this year.

A Veterinary Society was started this year, under the auspices of the Board of Examiners who in a body attended the first meeting on 7th May 1889. Inspecting Veterinary Surgeon Anderson was elected President; Dr. Nariman, Secretary. The *Bombay Veterinary Association* has proved a decided success. Its meetings were mainly held at the College and well attended by practitioners and students. One meeting was held at the Poona Army Veterinary School when "Description of Horses" was dealt with. Among several inquiries being carried on by the Association I may specify those on "Coloration of Indian Cattle," which promise to put this much-debated question at rest for ever.

17. *Financial.*—The financial statement required by Government is herewith appended (Appendix H). An examination of the College expenditure and income shows that the total cost to Government of the College during the past year has been approximately Rs. 23,600.

I have represented to Government that the grants for diagrams and instruments are insufficient and provision for increased expenditure under these headings has been made in the current budget.

As the work done by the College has been much greater and its departments are more varied than was anticipated when it was established, it might reasonably have been expected to cost more. On the contrary the original grants have been much reduced and we have been compelled to work on the reduced grant, however many new departments we inaugurate.

18. The prize list of 1889 is given as Appendix I.

19. On 17th March 1890, His Excellency Lord Reay, then Governor of Bombay, graciously distributed the prizes and diplomas, laid the foundation stone of the Sir Dinshaw Manokji Petit Laboratory, opened the isolation ward of the hospital, and inspected the hospital in general. A large and enthusiastic audience assembled to witness the ceremonies, and the encouragement given by His Excellency in his various speeches was much appreciated by all connected with or interested in the progress of the College.

Officers of the Medical Department have rendered us good service by assisting in examining our students and by performing the duties of members of the Administrative Committee. The Director of Public Instruction advises Government concerning the College in its educational aspects, and the Educational Inspector, Central Division, is a member of the Committee. Our interrelations with the Society for the Prevention of Cruelty to Animals have been uniformly cordial; and the Bombay Police have relations with us in that we examine cases of communicable disease for them, also their remounts as to soundness and fitness. The Principal advises the Municipality concerning sickness among the animals in its Victoria Gardens and is a member of the Gardens Committee of the Bombay Natural History Society which is working with a view to improvement of the zoological collection. The Veterinary Practitioners of all kinds and the College have given each other such mutual support as lay in their power and are in cordial relations, which are due to an extent to the Quarterly Journal of Veterinary Science in India, which, though published in Madras, is issued from the College.

20. In conclusion, I trust Government will consider that in improvement of organization, in obtaining employment for Graduates, and in supplementing the teaching means of the various branches, the College has worked efficiently during the past year. The only matter specially needing consideration is the diminution in number of the students and it will be seen from the body of the report that I consider this but temporary.

I have the honour to be,
Sir,
Your most obedient Servant,
JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

18th June 1890.

APPENDIX A.

Results of April 1889 Examinations, Bombay Veterinary College.

Examination.	1st Class.	2nd Class.	Pass.	Total Candidates.		Percentage of Passes.	Remarks.
				Examined.	Passed.		
First Professional	4	6	2	14	12	85·71	
Second „	5	13	4	29	22	75·86	
Third „	13	12	...	28	25	89·28	
Special License	1	...	...	2	1	50·00	
Total ...	23	31	6	73	60	75·21	

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

25th May 1890.

APPENDIX B.

Table of Students showing Number and Distribution for the year 1889-90.

Caste.	Term I.					Term II.					Total.	Remarks.
	Paying.	Native States.	Private, free.	Government, free.	Municipal, free.	Paying.	Native States.	Private, free.	Government, free.	Municipal, free.		
Pársi	1	...	...	2	...	...	...	...	...	...	3	
Hindu	4	11	...	...	...	...	...	...	...	...	15	
Mahomedan ...	...	1	...	...	...	...	...	...	...	...	1	
Portuguese ...	1	...	1	2	...	...	...	...	...	...	4	
European and Eurasian.	2	...	...	...	...	(—1)†	...	...	..	...	1	
Total ...	8	12	1	4	...	(—1)	...	...	...	...	24	
Pársi	...	...	...	1	2	1	...	...	...	...	4	
Hindu	1	3	...	1	...	...	...	...	...	...	5	
Mahomedan ...	...	2	...	1	...	...	...	...	...	...	3	
Jews	...	...	...	...	...	..	...	...	1	...	1	
Portuguese ...	3	...	...	...	..	(—1)	...	...	...	...	2	
European and Eurasian.	2	...	...	...	...	...	...	...	...	...	2	
Total ...	6	5	...	3	2	...	...	...	1	...	17	
Hindu	...	...	...	3	...	...	1	...	...	...	4	
Mahomedan ...	1	...	...	...	...	(—1)	1	...	...	...	1	
Portuguese ...	...	...	...	...	1	...	...	...	...	...	1	
European and Eurasian.	1	...	...	...	...	1	..	...	...	...	2	
Total ...	2	...	...	3	1	...	2	...	...	...	8	
Grand Total ...	16	17	1	10	3	—1	2	..	1	...	49	

* Private, free; those for whom fees are paid by munificence of some one on whom they have no domestic claim.

† Retired.

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

25th May 1890.

APPENDIX C.

Distribution of Government and Municipality Free Students, 1st April 1890.

Position.	Present in April 1889.		Joined since.		Retired or passed.		Remained in April 1890.		Remarks.
	Government.	Municipal.	Government.	Municipal.	Government.	Municipal.	Government.	Municipal.	
Passed 3rd Examination in April 1889...	4	2	...	..	4*	2*	...	...	* Graduated.
Remained in Class C	1	...	...	...	...	...	1	...	
Passed 2nd Examination in April 1889.	3	...	...	...	...	...	3	...	
Remained in Class B	1	...	...	...	...	...	1	...	
Joined Class B	...	...	1	2	...	...	1	2	
Passed 1st Examination in April 1889 .	2	...	...	...	...	...	2	...	
Remained in Class A	2	...	...	...	2	...	...	...	
Joined Class A	...	...	3	1	..	...	3	1	
Total ...	13	2	4	3	6	2	11	3	

Total number of free students on 1st April 1890 was 14, there being one vacancy on the list.

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

25th May 1890.

APPENDIX D.

Showing Caste and Number of Students from Native States, &c., Bombay Veterinary College, 1889-90.

Class.	Province, Presidency or State.	Number of Hindus.	Number of Mahomedans.	Remarks.
C ...	Berárs, Nizám's State	3	1	
	Baroda State	2	.....	
	Kolhápur State	2	.....	
	Junágad State	1	.....	
	Sángli State	1	.....	
	Jámnagar State	1	.....	
	Gondal State	1	.....	
B ...	Berárs, Nizám's State	1	.....	
	Sávantvádi	.....	1	
	Wadhwán	.....	1	
	Bhávnagar	1	.....	
	Junágad	1	.....	
A ...	District Local Board, Karáchi...	.....	1	New appointment.
	Do. Shikárpur.	1	.....	Do.
	Total ...	15	4	

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

25th May 1890.

APPENDIX E.

Return of the Names, present Pay and Appointments of Graduates and Licentiates of the Bombay Veterinary College.

No.	Name.	Present Pay.	Present Occupation.
		Rs.	
1	Vicaji Edulji Vakharia...	100—200	Instructor in Chemistry, &c., Bombay Veterinary College.
2	Nowroji Dorabji Dhakmarvala ...	100—200	Instructor in Anatomy, &c., Bombay Veterinary College.
3	Jamsetji Cowasji Batlivala	75	Veterinary Officer, Morvi State.
4	Vaghjibhai Desaibhai Patel... ...	50	Do. Baroda State.
5	Mundcur Narayenrav	150—200	Veterinary Lecturer, Agricultural College, Madras.
6	Hormasji Sorabji Batlivala ...	150	Veterinary Officer, the Andamans*.
7	Nariman Ratanji Kothavala ...	...	Unplaced.
8	Manchershaw Framji Vakharia ...	50	Market Inspector, Municipality, Surat.
9	Jamshedji Edulji Bharucha... ...	...	Veterinary Practitioner, Bombay.
10	Jagannath Keshavram Bhatt ...	40	Veterinary Officer, Local Board Dispensary, Ahmedabad.
11	Nisrali Fidaali Suleimani	50	Veterinary Officer, Baroda State.
12	Damodhar Gopal Abhyankar ...	50	Do. Local Board Dispensary, Dhulia.
13	Purshotum Devji Maniar	50	Do. do. Nadiád.
14	Jalejar Rustamji Aria	75	Sanitary Inspector, Bangalore Municipality.
15	Bezonji Sorabji Shroff	60	Veterinary Officer, Bikaneer.
16	Dhunjibhai Nowroji Patel	...	Veterinary Practitioner, Bombay.
17	Chitumbrum Pillay	60	Assistant Veterinary Surgeon, Ráipur, C. P.
18	Dorabji Sorabji Panthaki	25	Assistant Veterinary Officer, Bombay Veterinary College. (On probation.)
19	Sohrab Nanabhai Ranina	60	Assistant Veterinary Officer, Bombay Municipality.
20	Sorabji Kavasji Doctor	60	Veterinary Officer, Mounted Police, Myngyan, Burma.
21	Dhunjibhai Framji Dubash... ...	...	Veterinary Practitioner, Bombay.
22	Rahimim Reuben	40	Veterinary Officer, Local Board Dispensary, Násik.
23	Krishnaji Purshotum Devasthale ...	60	Veterinary Lecturer, Agricultural School, Nágpur.
24	Govind Dattatriya Khandker ...	60	Veterinary Officer, Hyderabad Assigned Districts (Berárs).
25	Jamsetji Ratanji Daruvala ...	...	Unplaced.
26	Nadirshaw Hormusji Edulji Sukhia, L.V.Sc.	Pay of rank	Assistant Surgeon, Medical Department, formerly Lecturer, Bombay Veterinary College.
27	Dr. S. K. Nariman, L.V.Sc. ...	300	Resident Veterinary Officer and Assistant Professor, Bombay Veterinary College.

* Since returned to Bombay on abolition of appointment.

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

25th May 1890.

APPENDIX F.

Return of Lectures, Demonstrations, &c., delivered and conducted at the Bombay Veterinary College in the year 1889-90.

No.	Subject.	Officer.	Class A.										Class B.										Class C.										Grand Total.
			June.	July.	August.	September.	November.	December.	January.	February.	March.	Total.	June.	July.	August.	September.	November.	December.	January.	February.	March.	Total.	June.	July.	August.	September.	November.	December.	January.	February.	March.	Total.	
1	Medicine and Surgery (Horse and Ox).	Principal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	22	19	10	20	15	21	19	12	144	144
2	Clinical	Do.	...	...	...	...	...	...	...	...	...	...	8	11	9	4	6	5	9	12	5	69	9	22	19	8	18	15	18	20	12	141	210
3	Minor subjects	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	13	10	5	9	9	10	9	6	75	75
4	Demonstrations	Do.	3	6	5	2	6	4	8	9	5	48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48
5	Hospital Practice	Principal assisted by Resident Veterinary Officer.	...	...	...	...	...	...	...	...	...	...	11	27	23	10	23	18	25	23	18	178	11	26	23	10	23	18	25	23	18	177	355
6	Medicine and Surgery ...	Resident Veterinary Officer and Assistant Professor.	...	...	...	...	...	...	...	...	...	...	4	14	10	5	11	9	11	15	9	88	...	...	...	...	...	...	...	...	...	...	88
7	Minor Subjects	Do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	8	9	4	6	6	9	11	6	63	63
8	Clinical	Do. ...	6	4	...	2	4	3	5	5	1	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
9	Anatomy	Lecturer on Anatomy ...	4	13	9	4	11	9	12	7	9	78	5	18	15	5	15	12	16	13	10	109	...	...	...	...	...	...	...	...	...	...	187
10	Physiology	Do. ...	1	5	2	2	4	3	4	3	1	25	2	7	9	4	8	6	9	7	3	55	...	...	...	...	...	...	...	...	...	...	80
11	Dissections	Do. ...	...	...	...	...	...	...	...	...	...	...	...	10	21	12	18	10	23	9	2	105	...	...	...	...	...	...	...	...	...	...	105
12	Chemistry	Lecturer on Chemistry ...	5	19	16	8	18	16	19	14	12	127	2	4	4	1	3	3	4	4	3	28	...	...	...	...	...	...	...	...	...	...	155
13	Botany, Materia Medica, &c.	Do. ...	5	20	20	9	18	16	20	19	13	140	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	140
14	Practical Shooing	Instructor in Shooing ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	4	5	3	...	...	...	21	21
		Total ...	24	67	52	27	61	51	68	57	41	448	32	91	91	41	84	63	97	83	50	632	34	91	89	41	81	66	83	82	54	621	1,701

N.B.—This table represents the number of instructions (generally occupying approximately one hour each) received by the students in their respective classes. It is *not* an accurate gauge of the work done by each officer, for sometimes two classes were taken simultaneously.

25th May 1890.

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

APPENDIX G.

Return of the Number and Nature of Books added to the Library in 1889-90.

Number.	Name of Class.	In Library added in 1886-87.	In Library added in 1887-88.	In Library added in 1888-89.	Total number of Books in Library on 1st April 1889.	Added in 1889-90.	Total number of Books in Library on 1st April 1890.
I	Chemistry	11	1	1	13	4	17
II	Botany	9	...	8	17	1	18
III	Materia Medica, Pharmacy, &c.	18	6	9	33	3	36
IV	Veterinary Surgery and Medicine.	88	27	30	145	12	157
V	Diseases and management of Dogs.	...	2	2	4	1	5
VI	Anatomy and Zoology ...	32	2	12	46	3	49
VII	Physiology	7	...	8	15	4	19
VIII	Sanitary Science, &c. ...	11	3	...	14	5	19
IX	Animal Management ...	22	1	29	52	2	54
X	Journals and Reports ...	9	99	30	138	1	139
XI	Government Reports ...	29	8	17	54	13	67
XII	Miscellaneous	25	13	16	54	17	71
	Total books in the Library.	261	162	162	585	*66	651

* This does not really represent all additions, for a number of pamphlets have been bound into volumes and replaced on the list by fresh contributions and purchases. Probably the additions have been on the whole as numerous as in previous years.

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

25th May 1890.

APPENDIX H.

Financial Statement of the Bombay Veterinary College.

Income.						Expenditure.						Remarks.
Heads.	1888-89.			1889-90.			Heads.	1888-89.			1889-90.			
	Rs.	a.	p.	Rs.	a.	p.		Rs.	a.	p.	Rs.	a.	p.	
From Government—														
Salaries—														
Teaching Staff	18,960	0	0	20,760	0	0	Teaching Staff	20,816	5	9	20,034	0	9	
Establishment	1,320	0	0	1,320	0	0	Establishment	1,306	8	5	1,312	13	5	
Contingent	860	0	0	500	0	0	Contingent Expenditure	661	5	1	391	7	2	
Scholarships	900	0	0	900	0	0	Scholarships	900	0	0	870	0	0	
Chemicals, &c.	.....			700	0	0	Chemicals, &c.	.....			961	9	3	
Examiners' Fees	250	0	0	300	0	0	Examiners' Fees	278	2	6	575	0	0	
House-rent Allowance	720	0	0	720	0	0	House-rent Allowance	664	6	3	895	0	0	
Travelling Allowance...	.....			400	0	0	Travelling Allowance	564	12	0	188	4	0	
Furniture and Apparatus	400	0	0	.....			Furniture and Apparatus ...	747	11	3	122	15	9	
From Bombay Municipality	2,500	0	0	2,500	0	0	Buildings and Repairs	5,272	3	8	3,341	6	5	
From Students' Fees	4,275	0	0	2,600	0	0								
Buildings and Repairs	5,466	0	0	3,597	0	0								
Total Receipts ...	35,651	0	0	34,297	0	0	Total Expenditure ...	31,211	6	11	28,692	8	9	

25th May 1890.

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

APPENDIX I.

Return of Prizes, &c., awarded to Students of the Bombay Veterinary College.

No.	Subject.	Nature.	Value.	Successful Candidate in 1889-90.	Remarks.
			Rs.		
1	Handling of Animals	A Scholarship	60	H. A. Shah	Mr. Steel's prize (1).
2	Practical Anatomy B.	Text Books for Class C.	58	S. N. Savardikar	Honourable Mr. Justice Bayley's prize.
3	First in Professional Examination ...	Pocket Case of Veterinary Instruments.	56	S. N. Savardikar	Sir D. M. Petit, Baronet.
4	Second do. ...	A Clinical Thermometer... ...	25	F. Fernandez	Mr. Steel's prize (2).
5	Clinical Records	A Medal	15	S. N. R. Ranina	Mr. Steel's prize (3).
6	Essay on professional subject	Professional Books	32	H. S. Batlivala...	Mr. J. K. Grainger's prize.
7	*Post-mortem* Records	A Clinical Thermometer	25	No competition...	Mr. Steel's prize (4).
8	Practical Surgery	Medal and Surgical Instruments ...	70	N. R. Kothavala	Mr. Hallen's prize.
9	Bovine Pathology	Professional Books and Watch ...	25	{ N. F. Suleimani ... ... { N. R. Kothavala	} Dr. Nariman's prize (1).
10	Hygiene, Sanitary Science, and Obstetrics.	Professional Books	25	J. K. Batlivala...	Dr. Nariman's prize (2).
11	Results of Examination	Government Scholarships (15) ...	60 each	Class B.—Savardekar, F. Fernandez, Desai, Sirke, Kulkarni, Albuquerque, Mahomed Shamsudin, Godinho, Kshirsagar, and King. Class A.—Pitke, Vaz, Browne, Shah, and Rathod.	
		Total approximately ...	1,291		

JOHN HENRY STEEL, F.R.C.V.S.,
Principal, Bombay Veterinary College.

25th May 1890.

Bombay Veterinary College: Annual Report of the —— for the year 1889-90.

No. 7933.

REVENUE DEPARTMENT.

Bombay Castle, 7th November 1890.

Letter from the Principal, Bombay Veterinary College, No. 522, dated 25th May 1890—
Submitting the Annual Report of the Bombay Veterinary College for the year 1889-90.

RESOLUTION.—The number of students on the College rolls at the end of the year 1888-89 was 75, of whom 25 passed out of the College as graduates during the year under report, 1 died and 11 left the College either because they found the course prescribed too difficult for them or for other reasons. Only 11 fresh students were admitted during the year. The number at the end of 1889-90 thus stood at 49. Though the number (11) of fresh entries during the year is larger than the number (6) admitted in 1888-89, it seems to the Governor in Council to be less than might have been expected or desired. It is possible that the smallness of the number of students joining the College may be in some measure due to a feeling of uncertainty as to the prospects of those who graduate therein, but the facts noticed by the Principal that only 2 of the 25 persons who became graduates in 1889 are unemployed and that the new Civil Veterinary Department when organized will open out a fresh field for employment will no doubt serve as inducements to young men to join the College. It may also be observed that the future prosperity of the Institution will to a considerable extent depend not only on the number of its graduates who obtain appointments under the British Government, Native Chiefs, and Local and Municipal Boards, but also on the success attained by those graduates who have commenced independent practice. It appears that already three of the graduates of 1889 have started as private practitioners in Bombay. Of the 49 students on the register 17 belong to Native States and two are nominees of the District Local Boards of Karáchi and Shikárpur. The present is the first occasion on which students from Sind have entered the College and it is to be hoped that their number will gradually increase.

2. In all 71 students presented themselves during the year for examination before the Special Board of Examiners appointed for the College, of whom 59 or nearly 83 per cent. passed the prescribed tests. Of these 59, 25 passed the final examination, 12 the first professional and 22 the second professional examination. Two of the members of the College staff appeared for the Special License examination and one was successful. Certain proposals made by the Board of Examiners regarding alterations in the course of study, the subjects of instruction and the system of giving marks were sanctioned in Government Resolution No. 944, dated 4th February 1890.

3. Of the 25 veterinary graduates who passed out in 1889 two belonged to the Central Provinces, one to Berárs, two to Baroda and one to Madras. All these have found employment in their respective Provinces. The remaining 19 belonged to the Bombay Presidency. Three of these have been employed as Instructors or Assistants in the Bombay Veterinary College, 4 as Veterinary officers in charge of the local dispensaries started at Ahmedabad, Nadiád, Dhulia and Násik, and 3 as Veterinary Assistants under the Bombay, Surat and Bangalore Municipalities: one has been employed in the Burma mounted police, one in the Morvi State and one in the State of Bikaneer: one was sent as Veterinary officer to the Andamans but has returned since the close of the year. Of the remaining 5 three have commenced business as private practitioners in Bombay, and two are without employment. Six of the passed men were Government or municipal free students. Government have read with interest the remarks

made by Mr. Steel in paragraph 4 of his report as to the benefits which the country at large is likely to derive from the employment of trained cattle doctors in the place of the present unskilled agency, and it is satisfactory to notice that applications for the services of graduates have been received even from places outside India, such as Ceylon and Penang.

4. Government are glad to observe that in Mr. Steel's opinion the local Veterinary Hospitals and Dispensaries established during the year at Ahmedabad, Dhulia, Násik and Nadiád have been working satisfactorily. The number of such institutions in the Presidency will be increased to 12 when the scheme for the new Civil Veterinary Department has been brought into force. His Excellency the Governor in Council also notices with pleasure that His Highness the Gáekwár of Baroda has started two similar hospitals in charge of veterinary graduates in his own dominions, and His Excellency trusts that other Princes will follow the same enlightened policy. The Political officers attached to Native States should be requested to bring to the notice of the Princes and Chiefs concerned the suggestions on this subject made by Mr. Steel in paragraph 6 of his report.

5. The quarters built for the Farrier and Instructor in Practical Shoeing had to be abandoned for residential purposes, owing to their insanitary condition, and they have been utilized under the orders of Government as a Pharmaceutical Laboratory. Government regret to notice that the quarters for resident students recently built at a cost of nearly Rs. 1,000 have been found so unhealthy as to be useless for residential purposes during part of the year and that members of the College and Hospital staff have also suffered severely owing to the general unhealthiness of the locality. The Principal should, in communication with the Secretary to the Hospital, take all possible remedial measures to improve this state of things.

6. The Governor in Council is pleased to observe that attention is being paid to the physical training of the students, and trusts that the Hospital authorities will be able to spare a plot of land out of the compound for a gymnasium and play-ground.

7. One of the most important buildings connected with the College, of which the foundation stone was laid during the year by His Excellency Lord Reay, is the Sir Dinsháh Mánekji Petit Patho-Bacteriological Laboratory. As remarked in paragraph 4 of Government Resolution No. 6113, dated 20th August 1889, one of the objects of the Laboratory is to furnish instruction in the use of the microscope to the students so as to obtain the recognition by the Royal College of Veterinary Surgeons of the diplomas of the Bombay Veterinary College. His Excellency the Governor in Council, however, regrets to notice that the Council of the Royal College of Veterinary Surgeons has already arrived at a decision not to grant such recognition to institutions like the Bombay College.

8. The Library and the Museum attached to the College received important additions during the year in the shape of books and specimens.

9. Special investigations were conducted during the year by the Principal or his Assistant regarding outbreaks of disease among sheep and goats in Khándesh and sheep and poultry at the Bombay Pinjrápole and in the island of Sálsette, and the prevalence of a serious disorder called 'Surra' (equine relapsing fever) among horses in the stables of the Bombay Tramway Company.

10. The receipts of the College during the year under review amounted to Rs. 5,100 and the total expenditure to Rs. 28,692-8-9. The net cost to Government of the maintenance of the College was thus Rs. 23,592-8-9, or nearly Rs. 481-8-0 per student. The net expenditure during 1888-89 amounted to Rs. 24,436-6-11 according to the figures given in Appendix H to Mr. Steel's report. Mr. Steel's remark in paragraph 17 of his report that "the original

grants have been much reduced" is evidently based on a misapprehension. The provision in the contract was for an expenditure of Rs. 20,000 per annum on the College while the actual expenditure during each of the last three years has exceeded that amount.

11. The abstract of the report of the working of the Bái Sákarbái Dinsháh Petit Hospital for Animals given by the Principal in paragraph 13 of his report shows continued progress in all the branches of the institution. An Isolation ward was added to the Hospital during the year through the liberality of Sir Dinsháh Mánekji Petit.

12. The commendation of Government is due to Mr. Steel for his interesting and exhaustive report and for the energy, devotion and skill with which he has performed the multifarious and laborious duties devolving upon him as Principal of the Veterinary College.

J. DE C. ATKINS,
Acting Under Secretary to Government.

To

The Principal, Bombay Veterinary College,
The Commissioners of Divisions and in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Political Department of the Secretariat,
The Political Agents, Káthiáwár, Cutch, Kolhápur and Southern Marátha Country and Mahi Kántha,
The Political Superintendents, Pálanpur and Sávantvádi,
The Political Resident, Aden,
The Superintendent, Horse-Breeding Operations,
The Municipal Commissioner for the City of Bombay,
The Accountant General,
The Educational Department of the Secretariat,
The Director of Public Instruction,
The Director of Land Records and Agriculture,
The Principal, College of Science, Poona,
The Military Department of the Secretariat.

} With copies of the report.

The Government of India,
The Secretary of State for India.

} By letter.

No of 1890.

Copy forwarded for information and guidance to

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

AND OF THE

BA'I SA'KARBA'I DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1890.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1891.

[Price—3½ Annas.]

BOMBAY BRANCH.
OF THE
Royal Asiatic Society.
CLASS

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

AND OF THE

BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS,

FOR THE YEAR 1890.

JJ-K-37

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1891.

No. 384 of 1891.

From

THE PRINCIPAL, BOMBAY VETERINARY COLLEGE;

To

THE DIRECTOR OF PUBLIC INSTRUCTION,
Poona.

Bombay Veterinary College and Hospital, Parel,
dated 16th of June 1891.

SIR,

I have the honour to forward the annual report of this institution for the year ending 31st March 1891, compiled by Dr. Nariman, who officiated as Principal during the latter part of the period under report.

2. I respectfully beg to draw particular attention to Dr. Nariman's remarks on the insanitary state of the hospital and its surroundings, in which I fully concur.

3. I fear that without the active interference of Government nothing will be done to improve matters by the Committee or Secretary of the Society for the Prevention of Cruelty to Animals.

4. Dr. Nariman's report is an extremely able one, and is such as might be expected from a man of his high scientific attainments.

I have the honour to be,

Sir,

Your most obedient Servant,

G. J. R. RAYMENT, A. V. D.,
Principal, Bombay Veterinary College.

From

DR. S. K. NARIMAN;

To

THE PRINCIPAL, BOMBAY VETERINARY COLLEGE.

Bombay Veterinary College,
Parel, 4th June 1891.

SIR,

Under instructions conveyed in your memorandum No. 276, dated 6th May 1891, I have the honour to submit the following report, being the fifth annual report of the Bombay Veterinary College, dealing with transactions of the official year ending 31st March 1891. One paragraph as usual under the heading of *Clinical Instruction* contains a brief summary of the report of the Bai Sakarbai Dinshaw Petit Hospital for Animals for the year 1890.

2. The professional examinations for the year under report were held at the College by the Government Board of Examiners consisting of Veterinary Surgeon (1st Class) J. K. Grainger, Superintendent, Horse-Breeding Department (President); Veterinary Surgeon (1st Class) S. M. Smith, Veterinary Lecturer, College of Science, Poona, Veterinary Surgeon F. W. Sharp, deputed by Inspecting Veterinary Surgeon, Bombay Army, and Dr. M. G. Deshmukh, Assistant Chemical Analyser to Government (Members). The examinations were continued from 21st April to 1st May. The final meeting of the Board and members of the teaching staff was held on the latter date, when the results were declared as per Appendix A. At the same meeting certain alterations were suggested in the course of minor subjects prescribed for the diploma examination and also in the system of awarding marks in different examinations, which were submitted to Government and approved in their Resolution, Revenue Department, No. 4177, dated 14th June 1890. The new scheme thus sanctioned comprises about fifteen minor subjects, in addition to the theory and practice of veterinary medicine and surgery, for the final examination. The trial, which the scheme has already had, shows that the subjects are too numerous to be taught efficiently in one year. In fact, there are not even at present facilities for teaching some of the subjects practically, and these may have to be dispensed with for the present. The question can, however, be determined on the result of the current year's examinations and the opinion of the Board in the matter.

The permanent Board of Examiners has so far answered very well, but it is with some difficulty that the Medical members find time to serve on it. They have also no inducement to do so, as under the orders of Government (Resolution, Revenue Department, No. 13, dated 3rd January 1890) the members of the Board resident in Bombay do not obtain any extra remuneration for their services like the outside members.

3. On 1st April 1890, there were 49 students on the College rolls: there were 16 fresh entries during the year, but one of the fresh students attended only during the first term: 22 students retired from the College during the year, 19 of them passing out as graduates, while the remaining three left the College, two on account of their constant failures at the examinations and one on account of ill-health. Three of the new students joined B Class, as one of them was a diplomate in Agriculture and the other two Hospital Assistants. One student, who was suspended from the last examination, was, on the recommendation of the Managing Committee, allowed to attend both A and B Classes. The changes in the number of students are shown in Appendix B.

4. It will be seen that while the number of entries shows an increase of 4 as compared with the preceding year, there is a fall in the total number of students, due to a larger number having passed out during the year under report. Though the number of fresh admissions or the total number on the roll cannot by itself be considered large, it is just equal to the anticipated demand for veterinary graduates in future years, as it would be difficult, if the number were

larger, to find employment for all after graduation. A reference to Appendix C will show that only 10 of the fresh students are independent, whilst the rest are nominees of Native States which bear all their College and other expenses on the understanding that the students after graduating will serve the States, if required, on fixed salaries ranging from Rs. 50 to Rs. 100 per mensem.

The majority of students entering the College are quite suited for the profession both from their preliminary education and physical stamina. The latter desideratum is, however, wanting in a few of them, who cannot be expected to turn out good veterinarians. Such men have to be admitted into the College owing to paucity of entries. Some of them improve greatly while at the College and turn out fairly good veterinarians, though they generally take five or six years to pass out instead of the usual three years; while others are forced to retire through constant failure, mostly in practical work.

Appendix D shows the number of students of each nationality on the College rolls during 1890-91. In regard to physique the Mahomedans, Pársis and Christians are decidedly better suited for the profession than the Hindus, but, unfortunately, the prospects held out to the graduates are too poor to attract the better class of men in larger numbers than at present. The organisation of the Civil Veterinary Department was looked forward to by the graduates and the students as a means of bettering their prospects and improving their status, and by the teaching staff as a means of inducing a better stamp of men to join the College. But these hopes are not likely to be realised as Government have been pleased to decide in paragraph 6 of their Resolution, Revenue Department, No. 2011, dated 18th March 1891, that the graduates to be employed in the Civil Veterinary Department will not be enrolled as servants of Government entitled to the privilege of pension, &c., but will be considered as employés of the Local Boards concerned.

5. To improve the state of the College, to better the prospects of the graduates, and to save the College from a slow but steady decline,* either the Government must be prepared to guarantee a few appointments every year to graduates, or else it is essential to fall back on a scheme once approved by the College Managing Committee when considering the draft College rules and regulations, but since abandoned. Under this scheme, the College curriculum will be divided into two main branches, one comprising a three-years' course as at present, and the other extending only over two years. The latter course will be of a thoroughly practical nature, and students who go through it will be subjected to oral and practical examinations, after passing which they will be entitled to receive certificates from the College as Veterinary Assistants. The holders of such certificates will not have such high aspirations as the present graduates and they will easily obtain suitable employment as salutris in the Commissariat Department, in the Horse-breeding Department, in the Police, under Local Boards, &c., on moderate salaries. The present diploma must be retained for students who go through a three-years' course of study, but only those should be admitted to this course who join the College after passing the Matriculation or School Final Examination of the University, or else pass a strict entrance examination at the College comprising all the subjects required at the English Veterinary Colleges, and whose previous training and physical stamina are such as to ensure their becoming good veterinarians and thus do honour to the College. Under such an arrangement, there would be some chance of getting the College affiliated to the Royal College of Veterinary Surgeons, as the insufficiency of our present entrance test is believed to be the main reason which led the Royal College authorities to refuse the concession, among others, to the Bombay Veterinary College some time ago.

* Average number of students in the College:—

1886-87.	1887-88.
69	80
1888-89.	**1889-90.**	**1890-91.**
75	49	42

6. Appendix E is a return showing Native States and Local Boards' students. It is satisfactory to note that the number of such students has increased from two in 1889-90 to six in the year under report, though the total number of such students in the College has fallen from 19 to 17 on account of a large number having been successful at the diploma examination.

The Mysore State, which possesses many valuable cattle and which is known for its cattle-breeding industry throughout India, has for the first time selected a student of its own, and it is understood that His Highness the Mahárája contemplates sending students regularly every year to the College. The Limbdi State, which was hitherto not represented in the College, has also come forward with one student. The Bhávnagar State has added one more student, this time a Mahomedan gentleman. The Kolhápur State has contributed two students, one to the A Class and the other to the B Class.

The Local Board of Hyderabad has followed the example of Shikárpur and Karáchi by sending one student of its own. This new student, a Hindu gentleman, being an Hospital Assistant, has been admitted to the B Class, so that all the three Sindhi students are at present in the same class.

The Government and Municipality free students are shown in Appendix F. It will be observed that some of the free studentships have not been availed of—a result mainly due to the paucity of candidates and partly to the fact that some of the free students withdrew from the College and one was successful in securing the Mysore State scholarship. The grant of free studentships has not proved so attractive as was at first expected. Perhaps better results may be secured by the offer of a limited number of stipends, say of Rs. 15 per mensem each, to deserving men after a competitive examination, the offer being subject to the condition that failure at any one of the examinations will involve forfeiture of the stipend.

7. The employment of graduates has been throughout the year a matter of serious consideration, as on this depends the future prosperity of the College. Although numerous applications were received from the Commissariat, Horse-breeding and other Departments, the pay offered was generally so small as not to be acceptable to our graduates. Notwithstanding this fact, out of the new batch of 19 graduates, all are by this time fairly settled in life. Appendix G gives the names of the graduates of 1890 and shows how each is employed. It will be observed that one of the graduates has gone out of the line and has become a school-master. It is highly gratifying to note that four of them have shown an independent spirit and set up as private practitioners—one in Bombay, one at Poona, one at Belgaum and one at Zanzibár. The number of veterinary graduates in private practice now comes to 7, and it is hoped that the enterprise shown by these men will be crowned with success, so that others may be induced to follow their example.

Some of the appointments, made during the year under report, deserve special notice. The Bhávnagar State has placed one graduate in charge of the State stud; and the Gowalior State has selected one for the veterinary charge of the State cavalry. Mr. J. K. Batlivala, a promising graduate of 1889, who was employed in the Morvi State, has been appointed to be Assistant Professor in the Veterinary School at Rangoon. The Thákor Sáheb of Morvi has employed another graduate in place of Mr. Batlivala. Two more graduates were sent to Burmah to be employed under the Director of Agriculture there, but they have since resigned as they were ordered to proceed to Lashio, an out-of-the-way place, where they found they could not maintain on the pay offered to them. One of them has returned to Bombay, and the other, it is understood, contemplates starting private practice at Rangoon. Two of the fresh batch of graduates, who were the nominees of Kolhápur and Baroda States respectively, were not offered employment in their own States and so had to be provided for elsewhere. The reports received from time to time as to the efficiency of the graduates employed in different capacities are on the whole satisfactory; only at one or two places they have failed to give satisfaction as regards performance of work assigned to them outside their veterinary duties. To prevent any more such failures occurring it is contemplated to impart an elementary knowledge of subjects allied to Veterinary Science though not belonging to it.

8. Outbreaks of contagious diseases of cattle were pretty frequent during the year under report, the *foot and mouth disease* being most prevalent. In the Thána and Kolába districts and in the town of Bombay there were numerous cases of the latter disease. The disease was, however, of a very mild type and did not make any serious havoc among the animals affected, most of whom

recovered under proper treatment. It is observed that even in a city like Bombay, at the time of an outbreak of foot and mouth disease among cattle, due care is not taken to isolate the affected animals. It is a common thing to see such animals working on the roads at great risk of infecting the healthy animals. Even in some cases the owners choose rather to pay fines in Magistrates' courts than to isolate the affected animals and get them treated. The adoption of more vigorous measures alone, it seems, will have the desired effect on such persons. The disease prevails widely in Bombay almost every alternate year, and is observed not only among working cattle, but also among milch cattle like buffaloes and cows, and thus endangers the health of human beings, especially the children, inasmuch as the consumption of milk of the affected animals produces a severe disease of the mouth and diarrhœa.

Rinderpest was rare last year. There were a few cases in the hospital wards.

Tuberculosis in cattle in this part of India is common; and as the disease is communicable to man, both through milk and flesh, it requires immediate attention. At present, the milk of the affected animals is freely mixed with good milk and sold in the market. Possibly the great prevalence of phthisis in Bombay is due to some extent to this cause.

Anthrax fortunately is absent here: anyhow no cases of that disease have been brought to notice.

Rabies is heard of every now and then, and almost every month cases of dogs suffering from this disease are brought to the hospital.

Cases of *glanders-farcy* are becoming very common in Bombay. They generally arise in the Arab commission stables. The disease is prevalent in Bombay to a larger extent than is generally believed. Whenever a case of glanders is found by the Police Inspector on the road, or brought to the hospital by an owner, on searching the stable to which it is traced, several more cases are generally discovered. The Glanders Act in Bombay is working satisfactorily and a few successful convictions lately secured by the Police have had a very wholesome effect.

In their Resolution in the Judicial Department, No. 1552, dated 13th March 1891, Government have been pleased, on the recommendation of the late Veterinary Surgeon Steel, to appoint Mr. Jamshedji Edalji Bharucha, G.B.V.C., and Mr. Nanabhoy Narsingrao, G.B.V.C., to be Veterinary Surgeons under the Act, but at the same time they have cancelled the appointments of the Principal and Resident Veterinary Officer as Veterinary Surgeons under the same Act. The necessity of restoring the appointments of the latter officers under the Act in the interests of the College and the public in general has been urged upon Government in the letter from this office, No. 152, dated 26th March 1891. In addition to the various inconveniences pointed out in that letter, the withdrawal from the College officers of the powers previously vested in them will also tend to prevent the efficient working of the Act. It is hoped that Government, on consideration of the facts brought forward, will re-consider* their previous decision.

* The previous orders have been modified since this was written—*vide* Government Resolution, Judicial Department, No. 2693, dated 16th May 1891.

9. The College officers have from time to time been called upon to assist the Health Officer of the Port of Bombay in accordance with the orders is Government Resolution, Revenue Department, No. 2955, dated 30th April 1890, to inspect cattle and hides imported into Bombay from the east coast of Africa. No fees are paid for the performance of this duty, which also interferes with the College work of the officers who are deputed to it. The circumstances point to the necessity of appointing a separate Veterinary Inspector for the port of Bombay, and proposals on the subject will be shortly submitted.

10. The Principal of the College has, as hitherto, advised Government and Municipal officials on veterinary matters. They include:

(*a*) Organisation of the Civil Veterinary Department.

(*b*) Conference in connection with the Civil Veterinary Department held in Poona between 29th November and 2nd December 1890.

(c) Deputation of a graduate to investigate and check the spread of cattle disease (rinderpest) in the Thana district.

(d) Instructions as to the nature and prevention of cattle-disease (foot and mouth disease) sent to the Collector of Kolába.

(e) Advice as to treatment and management of the animals in the Victoria Gardens.

The College officers also performed the following extra collegiate work :—

The late Principal Steel prepared a work on *Surra*, which it is hoped will soon be published, and gave a lecture in connection with the Bombay Natural History Society on *mules*.

Dr. Nariman read a paper on the ill effects of *over-crowding in cattle* in Bombay before the Bombay Veterinary Association.

Assistant Veterinary Officer Mr. J. D. Parakh efficiently performed the duties of the Secretary to the Bombay Veterinary Association during the absence of Dr. Nariman. The Bombay Veterinary Association has been doing substantial work and is of great help to the College students. In view of the great benefits conferred on the College, a room has been allowed for the use of the Association by the Principal. The College is indebted to the Association for some valuable specimens which have been presented to the Museum.

11. The revised course of instruction, proposed by the late Mr. Steel and approved by Government, was followed in its entirety. The experience of the teachers in regard to the new course is that it throws unnecessary burden both on teachers and students. Many subjects, which can with advantage be taught in the general lectures on Medicine and Surgery and which can be grouped with other allied subjects, are put down as separate subjects. Again, some of the subjects are totally practical and so can never be efficiently taught in the lecture-room. It would be a great advantage to the students if more of their time is devoted to practical work than to theoretical studies. Under the present arrangement, the C. Class students have hardly sufficient time to attend to the practical work as they have to learn a large number of minor subjects from books or lectures. It is at the same time gratifying to note that the students in general are taking considerable interest in practical work and they have done well also in the practical portion of the last professional examination. The system of weekly examinations was continued last year with great advantage, as it puts the students in the way of answering questions. The views often expressed by the examiners that students pay more attention to book work than to practical work and often cram their minds without understanding what they read are correct in some cases, as some of the students are incapable, through deficient knowledge of English, of understanding the lectures or the text books. Often in the examination such students are unable to answer a question, if the form, in which it is generally put, is slightly altered.

12. A syllabus of the College course of instruction prepared by the late Principal Steel showing in detail the manner in which each lecture should be given was brought into force for the first time. It has been found, however, that the syllabus is much more minute and extensive than is necessary, as it embraces more subjects than are even required for the diploma of Fellowship of the Royal College of Veterinary Surgeons. Its adoption also throws a considerable amount of additional work of a theoretical nature on the students, thus drawing away their attention from practical work which is much more important.

I consider this a suitable opportunity to allude to the proposal as to granting of a higher diploma in Veterinary Science to graduates and licentiates on passing a higher examination after a certain number of years' practice, which was suggested by the late Professor Steel in his letters to Government, Nos. 631 and 879, dated 29th September and 20th October 1890 respectively. Any higher diploma is unsuited to the present condition of the College and the graduates. The change in the present system which is urgently demanded is described in paragraph 5 above.

Appendix H shows the number of lectures in the class-room and the wards given during the year. It will be seen that some of the subjects pertaining to

the senior class, which are usually taken by the Principal and the Assistant Professor, had to be entrusted to the instructors owing to the absence of Dr. Nariman on leave for a part of the year and the Assistant Professorship having remained vacant for another part of the year when Dr. Nariman was acting as Principal.

13. During the year under report fittings were erected in the students' drug and bone rooms; permanent sun and rain protectors for office doors were provided and the lecturers' room was also divided into two parts by a small partition. The minor works mentioned below were sanctioned during the year, which will shortly be executed:—

(*a*) Construction of new privies.

(*b*) Construction of bath-rooms for resident students.

(*c*) Construction of urinals for students.

(*d*) Paving of old privies and construction of cesspools.

(*e*) Alterations in the trevis and measuring shed.

(*f*) Additions to record shelves in clerk's office.

(*g*) Construction of a cesspool behind the dissection and *post-mortem* rooms and a receptacle for the maceration of specimens.

The following are also essential and will shortly be proposed:—

(*h*) A canvas ceiling and certain minor alterations in students' quarters.

(*i*) Laying of gas and water pipes in the new Patho-Bacteriological and the Chemical Laboratories.

Of these works the first four are the outcome of the visit which His Excellency the Governor Lord Harris paid to the College on the morning of 16th January 1891 with a view to inspect the sanitary condition of the College and hospital grounds and to inquire after the health of the resident students. The College officers and the students feel highly indebted to His Excellency for the kind interest thus evinced by him in their welfare. Certain changes with a view to increasing the dimensions of the present privies are also under contemplation.

The Sir Dinshaw Manekji Petit Patho-Bacteriological Laboratory, of which the foundation-stone was laid by His Excellency Lord Reay in 1889-90, was completed and opened in the presence of a large and representative public gathering by His Excellency Lord Harris, the Governor of Bombay. His Excellency Lord Harris was also graciously pleased to honour the College on the same occasion by distributing the diplomas, medals, prizes and certificates to the successful graduates and students of 1890. The building of the laboratory, which consists of a cellar, a ground floor and three upper floors, is a gift of Sir Dinshaw Manekji Petit, Bart., and is expected to supply a long felt want in veterinary instruction. No medical or veterinary institution of the present day can be considered perfect unless it has a research laboratory. The laboratory owes its existence to the exertions of the late Veterniary Surgeon Steel, who was the first to start the scheme, which also received great support from Mr. K. M. Shroff, the present Secretary to the hospital. It is intended to utilise the cellar for storing vaccines, lymphs, cultivation media, &c., and the ground-floor as a general pathological room for the work of the Professors and graduates; the second floor will be used as a practical class-room for teaching Histology to the B Class and Morbid Anatomy to the C Class; the third floor will be the bacteriological room for delicate work by the Professors, where occasionally students and graduates will be taken but not allowed to handle the delicate apparatus; the top-most floor, which is open on all sides with a canvas awning, will be utilized in future for micro-photography after certain alterations. The building has been properly furnished and the necessary apparatus, including a bacteriological microscope, has been ordered and is expected in a few months from England. It is intended to commence work at the beginning of the long session, that is, from November next. For the special and delicate work of the laboratory it is quite essential to have one specialist solely devoted to it, but as the laboratory is more to be utilised for teaching than for original research, arrangemets for the work can be made among the present teaching staff with certain alterations in the present system of lectures. The necessary proposals for this will be submitted when the scheme is ready.

14. As regards the teaching staff of the College, there were more changes during the year under report than in any previous year.

The late Veterinary Surgeon Steel was Principal from 1st April to 5th December 1890: Dr. S. K. Nariman, Acting Principal, from 6th December 1890 to 8th January 1891, and sub. *pro-tem.* Principal from 9th January to 31st March 1891.

In the death of Veterinary Surgeon J. H. Steel, F.R.C.V.S., F.Z.S., this College has lost its very backbone. During his career in the College he had endeared himself equally to all, his colleagues, graduates and students. He showed considerable tact and zeal in organizing the College, the first of its kind in the whole of India, and the present high status of the institution is to a great extent due to his exertions. Both as a teacher and a scientific man he displayed extraordinary abilities. His death is a terrible blow to the veterinary profession of which he was a promiment member and to the cause of Veterinary Science in general. He published several standard works and was the Editor of the Quarterly Journal of Veterinary Science in India. His name is also associated with many scientific researches, and had he been spared he would have distinguished himself much more. It is a matter of great satisfaction to note that the members of the staff and the graduates and students of the College have collected a decent sum of money, part of which is to be spent on a bromide bust of the deceased, to be placed in a prominent place in the College, and out of the remainder a silver medal bearing his name will be instituted, to be awarded to the student who passes the examination with the highest number of marks in *handling of animals*—a subject in which he took the greatest interest.

In Government Resolution, Revenue Department, No. 1304, dated 18th February 1891, Veterinary Surgeon (1st Class) G. J. R. Rayment, F.R.C.V.S., was appointed to be Principal of the College.

Assistant Professor and Resident Veterinary Officer Dr. Nariman went on privilege leave to Europe from 6th June for three months, and was further detained by the Secretary of State for India in Council at the recommendation of Bombay Government for nearly three months more to see bacteriological work in English schools and at M. Pasteur's Institute. Experience thus gained by him will be utilized in conducting the Patho-Bacteriological Laboratory recently opened in connection with the College. During his stay in Europe, he also visited the Alfort Veterinary College at Paris and the four Veterinary Colleges of Great Britain. Although he has not succedeed in obtaining from the Royal College of Veterinary Surgeons certain concessions for which he had applied, he is still in correspondence with the authorities of that College to get himself recognized as a Colonial or Foreign Veterinary Surgeon under the Veterinary Surgeons Act of 1881, so that he may get the diploma of M.R.C.V.S. by keeping only three sessions (one year) at a British Veterinary College. During Dr. Nariman's absence, Mr. Nanabhoy Nursingrao, G.B.V.C., acted as Assistant Professor, &c. He performed his work satisfactorily and gave good help to the late Mr. Steel, especially in the hospital work. The greater part of the College duties of the Assistant Professor, however, had to be performed by Mr. Steel and the other Instructors. On account of paucity of College teachers, the absence of either the Principal or the Assistant Professor tells heavily on one of them. Thus when Dr. Nariman held the post of Principal, as Government decided in their Resolution, Revenue Department, No. 9250, dated 31st December 1890, not to fill up the vacancy of Assistant Professor, it was found absolutely necessary to contrive some make-shift to carry on the work of the College, as all the three-years' classes were working and as the professional examinations were drawing nigh. The College classes of Assistant Professor were divided between the Principal and the Instructors, while the duties of the resident Veterinary Officer were entirly entrusted to the two Assistant Veterinary Officers. This arrangement worked very well. The Assistant Veterinary Officers deserve some remuneration for the extra duties thus performed by them beyond office hours and it is intended to move Government in the matter. Nowithstanding these arrangements, the students of the senior class did suffer somewhat in their studies, and it would be well if Government would in future see their way to filling up the vacancies as they arise.

The year under report is the first one during which the experiment of entrusting the duties of Instructors to Veterinary graduates sanctioned by Government in Resolution, Revenue Department, No. 9422, dated 14th December 1889, has been carried out. The two Instructors, Messrs. V. E. Vakharia and N. D. Dhakmarvala, who replaced the Assistant Surgeons Engineer and Sukhia on 1st April 1890, although without any previous experience in the teaching line, worked hard throughout the year and they give fair hopes of turning out good teachers in a short time. They show great zeal and interest in their work and are assisting the Principal in his multifarious duties both at the College and hospital. Mr. Dhakmarvala has put up a skeleton, while Mr. Vakharia has made some substantial changes in the chemical laboratory. It is certainly a great advantage to the College in having these full-time workers instead of the Assistant Surgeons who simply lectured to the classes and did not do any work in the hospital. The Instructors were of great help in the hospital work during the vacations. As this was their first year and they had consequently considerable difficulty in getting up lectures, &c., it was thought advisable not to give them hospital duties during the sessions, but from the ensuing year it is intended to give them their full share of hospital work so that their practical knowledge may not get rusty and either of them may become competent enough to take up the post of Assistant Professor and Resident Veterinary Officer whenever it is vacant. They have also been advised to attempt to get matriculated at the University so that they may have some time a chance of being recognized as Colonial Veterniary Surgeons under the British Act, and thus obtain the diploma of M.R.C.V.S. after a short stay in Great Britain. It is hoped that at no distant date all the members of the teaching staff will also be members of the Royal College of Veterinary Surgeons.

The post of instructor in Practical Shoeing has not yet been permanently filled up. During the first few months of the year, Rs. 40 a month were paid to a native farrier who did the practical shoeing work, while from September last one of the graduates has also been temporarily appointed to be instructor in shoeing on Rs. 40 a month. Arrangements are being made to get a graduate specially trained for Farriery, as there is no chance of attracting any more men from the Army for the post. As soon as a graduate is ready for the post, proposals will be submitted as to the way in which his services should be utilized. Mr. H. S. Batlivala, G.B.V.C., the temporary instructor in shoeing, and the native farrier, have worked satisfactorily.

The two Assistant Veterinary officers sanctioned by Government have proved of great help in the hospital work, and also did good service in conducting classes during the casual absence of the teachers. Further they cheerfully performed the extra duties of Resident Veterinary officer when Dr. Nariman was Principal to his entire satisfaction. These post-graduate appointments, though the remuneration attached to each is only Rs. 300 a year, are already becoming attractive among the graduates as they afford them considerable facilities to extend their practical knowledge and thus make them better veterinarians.

The Superintendent of Bacteriological Laboratory, Mr. G. P. Nariman, G.B.V.C., was entertained from 15th December 1890. He assisted the Principal in preparing indents and in supervising the making of furniture for the new laboratory and in conducting the practical microscopical classes which were for the first time introduced during the year. He has been of help also in the investigation of specific diseases in the hospital.

The College Clerk, Mr. V. B. Phatak, performed his duties satisfactorily and was of special service in the year under report to the Acting Principal.

The re-organization of the teaching staff on the plan recommended by the College Committee and approved by Government that teachers in a Veterinary College should all be veterinary graduates and full time workers has thus worked very satisfactorily. Under this system the interests of the teachers and of the College are bound together, and being themselves *alumni* of the same institution, the Graduate Instructors feel a natural desire to do all in their power to promote its welfare. They are also quite in touch with the wants of the students on whom they can impress what is most important and useful in their respective branches of instruction.

15. I now come to the several departments of the College study and notice important points connected with each.

Anatomical.—Three complete skeletons are now available for the study of anatomy; some good specimens of joints and tendons made by Class B students are available for demonstrations; a number of useful diagrams has been added. There was a fair number of subjects for dissection, but as they were not obtainable regularly throughout the year, dissections were continued all day whenever possible, while on the other days an hour's instruction from diagrams, dried up specimens and models, was arranged. Owing to the rapid decomposition of the subjects—notwithstanding the strict antiseptic precautions—telling on the health of men and animals, it has been arranged not to keep them for more than two days at a time. In order to avoid all sorts of danger to health it is further under contemplation to have dissections only during the dry season of the year, and not in the rains. A cesspool is urgently required behind the dissection and *post-mortem* rooms, as at present although the dirty water is carted away, some of it soaks in the grounds behind and is often a source of danger to health.

Physiological.—For the first time during the year under report the Histoloy classes were instituted by Dr. Nariman. The new instructor in the subject is quite a novice in practical work, but in a year or two he will make up the deficiency by working in the Patho-Bacteriological Laboratory. Arrangements have been made to teach systematically Physiological Chemistry from the ensuing year, and thus a great desideratum will be supplied. It is hoped that these practical classes will remove the existing difficulty on the part of the students in learning Physiology and the constant complaints of the examiners that the students are weak in this subject, the majority of them cramming from the lectures or books without understanding the matter.

Chemical.—The laboratory is now pretty well equipped and arranged. Elementary Practical Chemistry classes were held during the year, but there was no course in Organic Analysis. The insufficiency of water-supply and the want of gas are the two principal drawbacks in the laboratory. Proposals for removing these defects will be submitted to Government in conjunction with similar proposals regarding the Patho-Bacteriological Laboratory.

Botanical.—It is to be regretted that no progress can be made in teaching Practical Botany so long as the hospital authorities express their inability to spare a plot of ground for a botanical garden. The growing of lucern and the various kinds of grasses ought to be an essential part of this study, as a fair number of graduates is employed in charge of breeding studs and State paddocks. Numerous communications have been received from graduates and others regarding the importance of this study. In the absence of any arrangements at the College for teaching Practical Botany, the classes were taken to the Victoria Gardens for the purpose on certain days. It is hoped that failing any concessions from the hospital authorities, Government will be prepared to rent the grounds required and appropriate them for paddocks and botanical garden in such a way as to expose the grounds freely to sun and air and thus remove the causes of malaria.

Pharmaceutical.—The original farrier's quarters, which have been utilized for a pharmacy, seem to answer their purpose better than the room at the top of the Hospital Manager's office which was formerly used for the purpose; still they are far from satisfactory on account of the rooms being not large enough for dispensing, compounding, &c. As soon as the hospital authorities erect a new building for the Pharmacy, the present quarters can be better utilized in some other manner. The Principal in the last year took classes in Practical Pharmacy and Materia Medica with a view to help and put in the way the new Instructor in these important branches of study.

Pathological.—The students had, as in the previous year, special courses of instruction in *post-mortem* examinations and Morbid Anatomy. The study of various microscopical specimens practically and the handling of microscopes were for the first time introduced. The students show a keen interest in Microscopy, so much so that some used to bring their own microscopes and make their own specimens of soft tissues and liquids. Most of the senior students have thus

become competent to examine blood, &c., in specific disorders. There is no apparatus at present for hardening the tissues, cutting sections and mounting them, but the apparatus for the Patho-Bacteriological Laboratory which is shortly expected will remove these drawbacks.

In *Medicine and Surgery*, several lectures were delivered on the management and diseases of other domesticated animals besides the horse and ox, and especially dog, sheep, camel and birds. Except in the case of the camel, the hospital affords ample opportunity for clinical instruction. It is found essential to impart an elementary knowledge about these animals, as several graduates are employed in districts where they have to deal with them.

The *Library* has had an increase of books during the year (*vide* Appendix I). There are many useful books still wanting in the library. The deficiency will, it is hoped, be supplied during the current year. The Bombay Veterinary Association, of which most of the students are members, affords great facilities to the students for the perusal of veterinary periodicals. It has also been arranged to buy complete sets of periodicals from the Association at certain reduced rates and preserve them in the College library.

The improvement in the *Musuem*, alluded to in the last report, has been carried out to a great extent this year. The valuable specimens which were lying on the floor and were being mostly spoiled by rats have been arranged in glass cases under different classes, such as comparative, lameness, fracture, ageing, special, &c. There is thus a good and systematic collection at present of bony and dried specimens ; there are very few specimens of organs, however, and those few presented by the Bombay Veterinary Association. Much useful material in the *post-mortem* room has been wasted and not utilized from want of time and funds.

The *Forge* has been used to its full extent, the students, who cared to work practically, getting ample practice.

Operative Surgery was practised on a fair scale. Besides the practice on dead bodies, each student of the senior class had turns in casting the animals, in performing castration, neurotomy, removal of tumours, &c. A special grant of Rs. 300 for the purchase of locally manufactured surgical instruments, sanctioned by Government in Resolution, Revenue Department, No. 6106, dated 20th August 1889, on the reccommendation of the Managing Committee, has supplied a long felt want of ordinary instruments.

Nothing has been done as to the *Physical training* of students through want of a plot of ground either for gymnasium or lawn tennis, except the annual sports on the anniversary of the opening of the College. As in the previous years, so during the year under report, there were no facilities for riding, and very few of the graduates know how to ride a horse. This drawback will, however, now be removed through the generosity of His Excellency Lord Harris, the Governor of Bombay, who was pleased to announce, in his address at the gathering on the 21st March 1891, his intention of sparing a few of the Body Guard horses by turns to teach riding to the students, after consultation with the Commandant of His Excellency's Body Guard. The members of the staff and students of the College are highly thankful to His Excellency for this valuable concession, which is a mark of the great personal interest in the welfare of the College and the students which His Excellency has hitherto shown. Riding is one of the qualifications required for final examination, but had hitherto to be dispensed with from want of means of teaching it.

16. The *sanitary condition of the hospital grounds*, which has attracted great public attention during the year, is far from satisfactory, and is day by day getting worse, so that if proper means are not speedily taken, this extensive estate will be quite uninhabitable. The subject being of such vital importance to the welfare of the College, inasmuch as it concerns the health of the officers and students, requires more than a passing notice.

The whole district of Parel is malarial towards the latter part of the rainy season and for about a couple of months after the rains, *i.e.*, in August, September and October. The chief causes of this prevalence of malaria are :—

(*a*). Absence of drainage.

(*b*). Presence of large fields which are tilled and manured just before the rains with decomposing stuff, such as cotton refuse from mills or spoiled fish residue, for growing maize and vegetables.

(*c*). Absence of a proper number of latrines and urinals in the Parel village, forcing the people to use public roads, lanes and fields for natural purposes.

During the remainder of the year, however, the Parel district is as healthy as the other districts of Bombay. Unfortunately for the College such is not the case with the hospital grounds, which are fearfully unhealthy throughout the year.

The special causes of the unhealthiness must be sought for in the compound itself, and it is not difficult to trace them for one who knows the ins and outs of the place. These are as follows :—

(*a*). The foremost reason is that, in a large portion of the compound, the soil is artificially made up. When the hospital was being started the soil was for the most part rocky and composed of black stones. In fact, being impermeable, it was a very desirable and healthy soil, but for some reasons of their own, possibly with the object of cultivating the soil, the hospital authorities got the stones removed to a depth of three feet or thereabout and filled in the vacuum with dirty earth mostly obtained from the compounds of mills situated near the hospital. The present nature of the soil, rocky underneath and alluvial at the top, keeps the water all throughout the year very near the surface, as there is no chance for the water soaking into the ground to penetrate deeper and get mixed with the underground water.

(*b*). The liquid excreta together with a portion of the solid excreta of some 200 animals and surface washings of the stables are collected daily in cesspools outside the wards which are emptied some time in the day, the contents being thrown roundabout *within the compound* either on carriage roads, or under toddy trees, or in the fields. The contents generally contain equal parts of excreta and phenyle water (1 to 500), the hospital authorities being very sparing in the use of water, lest they may have to pay a heavier water-tax. This practice of throwing excreta and stable washings in the compound is highly prejudicial to health as often obnoxious gases are given out at nights.

(*c*). The filth from the dissection and *post-mortem* rooms, though collected and removed in municipal carts, often soaks in the grounds behind in sufficient amount to produce deleterious effects. The same may be said of the College privies which are used daily by forty to fifty persons and have yet no cesspool nor channel for the liquid excreta and washing water to pass, and hence all these soak in the surrounding ground.

(*d*). The hospital privies, which are used by nearly hundred persons, have cesspools, which are cleared only twice in a week ; the stench from these at times is abominable and quite sufficient to sicken persons.

(*e*). Two years ago, notwithstanding the protest of the College officers, a large pit was dug in the hospital compound for manufacturing manure by collecting the solid excreta, refuse, grass, &c., and allowing the contents to decompose by exposure to sun and soakage of rain water. As a consequence, within a few months the place became so unhealthy that the pit had to be closed, but unfortunately the greater part of the decomposing material is still there and not removed.

(*f*). The under-ground drainage in the old horse ward often gives out poisonous gases which are not only telling on the health of the horses, but also of the men working there. The syces in this stable are off and on laid up with fever, while the Resident Veterinary Officer and others have several times suffered from headache, fever or dysentery after working for about an hour continuously in this stable. There is no wondering at such a state of things as the drains have not been looked to for more than five years.

They are only imperfectly flushed every day—a six-inch drain flushed by a water-pipe of an inch and a half running through an automatic flushing cistern.

(*g*). To all these has been recently added the contagious ward which is likely to be full of disease germs, the majority of them infectious and communicable to men throughout the year, and which is built on so unscientific a principle that it is next to impossible to disinfect it properly even at three or four times the ordinary cost; while its closeness and imperfect ventilation afford a very fruitful nidus for the multiplication of the germs. It is most unsafe for people to work in this place.

All the defects in sanitation have from time to time been brought to the notice of the hospital authorities, but they do not seem to move in the matter. I consider now it is hopeless to expect any improvements from them except by active interference on the part of Government. Certainly the practice of throwing excreta and stable sweepings in the compound should be at once stopped, because it is as prejudicial to health as allowing the filth to collect from day to day in the stables. It is only a matter of small extra expense, as the washing can be removed in water-tight carts to Mahálaxmi or Kurla after consultation with the Municipality, or the Municipality might be asked to do the same as is done in the various mills, &c. The same thing should be done at least once a day as regards the cesspools in connection with the privies. Arrangements for paving the floor of the College privies to prevent soakage of water and for constructing cesspools behind them, as well as the dissection and *post-mortem* rooms, are now being made, and steps will be taken to get the cesspools cleared daily and cleaned, and the contents carried out of the compound to their proper destination.

The second point which requires immediate attention is to stop all decomposing matter in the form of cotton refuse from mills or dried fish residue being brought in the compound for manuring the grounds to grow maize, cucumber and beans during the rains. The growing of maize is also specially injurious to health, as the long stalks and leaves prevent the rays of the sun from fully playing on the ground. By stopping this cultivation the hospital authorities will lose about Rs. 100 a year, which amount can easily be recouped by utilizing the plot of ground for growing lucern or hariáli grass which, apart from being no way hurtful to health, will afford excellent fodder for the animals and will also supply the much felt want of practical botanical instruction to the students. The compound should also be cleared of all useless trees, only the few large fruit-trees being retained, and the ground should be filled with stones and made impermeable. All hollows in the compound should be filled up and sufficient slope should be maintained from east to west so as to assist the natural configuration of the place. If this be done, there is no chance of rain water collecting as the hospital compound is on a higher level than the main Parel road.

The next thing requiring attention is the clearing of the filth from the manure pit recently closed and filling the pit with stones. I am glad to note that arrangements are being made by the hospital authorities to repair the old horse stable, to examine the drains and, if necessary, to replace the under-ground drainage by a surface one. But no permanent good can be expected unless the drains are ventilated and examined and cleaned every few months. If this cannot be done, such drainage should totally be dispensed with. As for the contagious ward, the sooner it is closed and utilized for some other purpose, or even pulled down, the better. It is quite unsuited for the purpose for which it is built, and if continued to be used for some time as such, the consequences would be appalling.

I may be excused dwelling on these points in detail, but I cannot help doing so, as already the results of the insanitary conditions described above have proved disastrous to the employés both of the College and the hospital. This year, after pluckily holding out for a long time, the late lamented Principal, Veterinary Surgeon Steel, succumbed to liver disorder (abscess) acquired wholly in the College. For when he joined the College he had never suffered from the slightest liver disorder, nor from continued malarial fever, nor was he a drinker. He got

the first signs of disease in September 1887, that is, in his second monsoon at the College. Mr. Bhikaji Tavaria, the Manager of the hospital, a man of iron constitution, broke down and at last died of dysentery and fever. The present Manager and Assistant Manager are suffering off and on from fever and dysentery. Many healthy students suffer at the College from fever, jaundice, &c. The resident students have one and all to fly away in the rains. The hospital and College menial servants are often absent from duty or are unable to do their work through sickness. I may close this by stating that during the last four months of the year, when I was Principal, I had to grant leave of absence on account of sickness to no less than 17 students out of 42 and to treat as many more for ague, cough or dysentery.

17. *Clinical Instruction.*—The last annual report of the Bai Sakarbai Dinshaw Petit Hospital for Animals shows that in 1890 the progress made by the hospital in previous years was kept up. Veterinary Surgeon Steel was in clinical charge till 5th December and since then I officiated in his place. The College officers and students did their clinical work efficiently :—

(*a*). The number of in-patients fell to 1,504, there being 1,785 in 1889 and 1,661 in 1888. The daily average was 142. The number of dogs increased considerably. The death-rate was the same as last year.

(*b*). Out-patients fell from 755 to 728. This is to a great extent due to fees demanded for them. A free out-patient practice about three times a week at specified hours is suggested.

(*c*). The system of admission and discharge of animals is very unsatisfactory, being entirely left to hospital managers, who know nothing about veterinary matters. The decrease in the number of in-patients is greatly due to this defective system.

(*d*). The management of the animals is very poor, so that cases which can be discharged in a short time often remain months under treatment. The sanitary condition of the wards is at times so bad that operation-wounds and injury cases take an unhealthy turn.

(*e*). The mortality among dogs still remains high owing to the unhealthy locality. The defects in management and feeding the dogs are also pointed out.

(*f*). The unsatisfactory and almost alarming sanitary state of the hospital grounds and a few wards are clearly described and remedies suggested.

(*g*). The necessity of building a new pharmacy is shown. As regards new buildings, last year was a blank. As the compound is already overcrowded, the desirability of not having any more buildings in the compound is shown.

(*h*). The services to the hospital of the Manager and his Assistant, and of the Secretary to the hospital, as well as of the College Instructors and the Assistant Veterinary Officers, are acknowledged.

(*i*). The clinical records of all horse and dog cases and important cattle cases are regularly kept and are available for reference.

(*j*). Besides the improvements of hospital grounds in point of sanitation a large number of wants of the hospital, which require early consideration, is pointed out.

(*k*). Last year there was an unusual number of cases of *Surra* in horse and *foot and mouth disease* in cattle.

18. Order and discipline have been maintained throughout the year, there being no case of breach of College rules. One student was suspended from the first year's examination on suspicion of copying, but on his explaining matters to the Principal to his satisfaction, the case was referred to the Managing Committee, who allowed the student as a special case to attend both the first and second years' classes.

Our relations with the graduates and the existing practitioners in Bombay have been very cordial throughout. I am glad to note that interesting cases

are often sent by them either for confirmation of diagnosis or for practical instruction of students. The Bombay Pinjrápole also afforded special facilities to students for clinical study, especially as one of the graduates, Mr. Nanabhoy Narsingrao, is at present in veterinary charge of the Pinjrápole in Bombay and its branches at Chimbur and Bhiwndi. We are also indebted to the Veterinary Officer of the Bombay Municipality, Mr. S. N. Ranina, G.B.V.C., for interesting specimens and bullock cases.

One point with reference to existing graduate practitioners requires passing notice, namely, the correspondence between a G. B. V. C. and a L. V. Sc., which appeared about the close of the year in the *Times of India*, where a L. V. Sc. has passed certain unneccessary and groundless strictures on the College and its graduates. Had the matter proceeded further, the Principal would have been compelled to take serious notice of it. Such controversies are likely to degrade the profession in the eyes of the public and should by all means be stopped.

19. The financial statement of the College is herewith appended (Appendix J). The examination of the College income and expenditure shows that the total net cost to Government during the year under report has been approximately Rs. 17,400, including Rs. 700 spent for furnishing the new Patho-Bacteriological Laboratory. This cost is about Rs. 6,200 less than that of 1889-90 and Rs. 7,036 less than that of 1888-89, notwithstanding the continued expansion of the various departments of the College.

20. The prize list is given in Appendix K. Besides a Government silver medal and Professor Steel's and Dr. Nariman's prizes, the College is indebted to Sir Dinshaw Manekji Petit, Bart., for a prize of Rs. 50, to Honourable Mr. Justice Bayley for a prize of Rs. 50, and to Veterinary Surgeon (1st Class) J. K. Grainger for a prize of Rs. 32. The Honourable Mr. Justice Bayley's prize will be annual for the time he remains in Bombay; while I have to note with pleasure that on the day of the opening of the new Patho-Bacteriological Laboratory, Sir Dinshaw Manekji Petit, Bart., handed over a sum of Rs. 1,500 to the Trustees of the Bai Sakarbai Dinshaw Petit Hospital for Animals, the interest of which is to be utilised in giving annually prizes or medal to the students of the College. As the donor prefers a medal to prizes and is willing even to give an additional amount if required, arrangements are being made to institute a gold medal in the College in his name. For this special gift of Sir Dinshaw with his usual generosity the teachers and students of the College have conveyed their best thanks.

21. The College is now transferred to the Educational Department and the Principal of the College, who was till now the Head of the Department, has been subordinated to the Director of Public Instruction (*vide* paragraph 11 of Government Resolution, Revenue Department, No. 2011, dated 18th March 1891). According to the same Resolution all veterinary questions, as well as the inspection of local veterinary dispensaries, &c., have been transferred to the Director of Land Records and Agriculture. Now as the College is purely an educational institution, it is a question whether the College authorities should continue to perform extra collegiate duties. A reference on this point will shortly be submitted.

The Director of Public Instruction was kind enough to visit and inspect the College in the first session. The Educational Inspector, Central Division, a Member of the Committee, visited the College in November. The Director of Land Records and Agriculture, also a Member of the College Committee, as well as Mr. J. H. B. Hallen, General Superintendent, Horse-breeding Department, India, visited the institution from time to time and advised the Principal on important matters.

22. The administrative Committee of the College held two meetings during the year. The first meeting was held in the Town Hall, Bombay, on 8th July 1890, and the second meeting was held at Poona on 23rd August 1890. The principal business that was done by the Committee was :—

(*a*). Selection of free students.

(*b*). Discussion on riding test.

(*c*). Discussion on school for farriery.

(*d*). Discussion on education of dressers.

The Committee has now been dissolved according to Government Resolution, Revenue Department, No. 2011, dated 18th March 1891, and each member was informed of the same and thanked for his services rendered to this institution.

23. I trust that the record of work described in this report will be deemed satisfactory, considering the frequent changes in the personnel of the staff that took place during the year. Notwithstanding the difficulties encountered in finding employment for the graduates of the College, it is hoped that a sufficient number of students will continue to avail themselves of the benefits conferred by the institution and that, as time goes, it will prosper more and more.

I have the honour to be,

Sir,

Your most obedient Servant,

S. K. NARIMAN, M.D.,

Assistant Professor, Bombay Veterinary College.

APPENDIX A.

BOMBAY VETERINARY COLLEGE.

Results of April 1890 Examinations.

Examination.	1st Class.	2nd Class.	Pass.	Total Candidates.		Percentage of Passes.
				Examined.	Passsed.	
First Professional...	1	4	...	6	5	83·33
Second Professional	...	9	2	13	11	84·62
Third Professional	1	18	...	23	19	82·61
Special Tests	1	1	...	2	2	100·00
Total ...	3	32	2	44	37	84·04

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APPENDIX B.

BOMBAY VETERINARY COLLEGE.

Return showing changes in the number of Students in 1890-91.

Classes.	Number of Students on the 1st of April 1890.	1890-91. Withdrawals.		*1890-91. Entries.		Number of Students on the 1st of April 1891.	Remarks.
		Number of Students left the College.	Number of Students transferred.	Number of Students transferred.	New Entries.		
Class C ...	24	19*	...	13	...	18	* Left on graduation.
Class B ,, ...	17	3	13	6	3	10	
Class A ...	8	...	6	...	†13	14	† One of these having left in the 2nd term is not shown in the total.
Total ...	49	...	...	...	...	42	

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APPENDIX C.

BOMBAY VETERINARY COLLEGE.

Statement showing new Entries from different sources in 1890-91.

No.	Name of Student.	Nationality.	Place from which he came.	Remarks.
1	Kaisrising Bhagwansing ...	Hindu ...	Limbdi ...	State student.
2	Y. B. Bhagwat	Hindu, Bráhmin	Bombay ...	Private paying.
3	D. G. Kulkerni	Do. ...	Kolhápur ...	State student.
4	Serrajuddin Khan... ...	Mahomedan ...	Lahore ...	Government free.
5	E. D. Samuel	Jew ...	Bombay ...	Private paying.
6	S. V. Soman	Hindu, Bráhmin	Poona ...	Government free.
7	N. N. Iyangar	Do. ...	Mysore ...	State student.
8	V. G. Mehendale	Do. ...	Poona ...	Government free.
9	Gosla Mitha	Hindu ...	Bombay ...	Private paying.
10	A. P. Edibam	Pársi ...	Indore ...	Do.
11	C. J. Nathani	Mahomedan ...	Bhávnagar ...	State student.
12	W. J. Bolton	European ...	Faizabad ...	Private paying.
13	W. Buckel...	Do. ...	Bombay ...	Do.
14	J. M. Doctor	Pársi ...	Do. ...	Government free.
15	K. G. Gadgil	Hindu, Bráhmin	Kolhápur ...	State student.
16	A. B. Idnani	Hindu ...	Hyderabad, Sind.	Local Board student.

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APPENDIX D.

Bombay Veterinary College.

Table showing Number and Nationality of Students for the year 1890-91.

Caste.	Paying.	Native State, &c.	Private, Free.	Government, Free.	Municipal, Free.	Total on the 31st of March 1891.	Remarks.
Class C.							
Pársi...	1	...	...	...	2	3	
Hindu	1	7	...	1	...	9	
Mahomedan	...	2	...	...	...	2	
Portuguese	2	...	...	...	...	2	
European and Eurasian	1	...	...	...	...	1	
Jew	...	...	...	1	...	1	
Total ...	5	9	...	2	2	18	
Class B.							
Pársi...	...	...	...	1	...	1	
Hindu	...	3	...	2	...	5	
Mahomedan	...	1	...	...	...	1	
Portuguese	1	...	...	...	1	2	
European and Eurasian	1	...	...	...	...	1	
Jew	...	...	...	...	...	...	
Total ...	2	4	...	3	1	10	
Class A.							
Pársi	1	...	...	...	...	1	
Hindu	2	3	...	4*	...	8	
Mahomedan	...	1	...	1	...	2	
Portuguese	...	...	...	...	...	...	
European and Eurasian	3†	...	...	...	...	2	
Jew	1	...	...	...	...	1	
Total ...	6	4	...	4	...	14	
Grand Total ...	13	17	...	9	3	42	

*One of these was allowed to attend Classes A and B. and is shown in Class B.
† one left in the second term.

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APPENDIX E.

BOMBAY VETERINARY COLLEGE.

Return showing Caste and Number of Students from Native States, Local Boards, &c.

Class.	Province, Presidency or State.	Number of Hindus.	Number of Mahomedans.	Remarks.
C ...	Berár, Nizam's State ...	3	.....	
	Junágadh State	1	.....	
	Jámnagar State	1	.....	
	Gondal State	1	.....	
	Sávantvádi State	.....	1	
	Bhávnagar State	1	.....	
	Wadhwán State	.....	1	
B ...	District Local Board, Karáchi ...	.....	1	
	,, ,, ,, Hyderabad	1	.....	
	,, ,, ,, Shikárpur.	1	.....	
	Kolhápur State	1	.....	
A ...	Bhávnagar State	.....	1	
	Kolhápur ,, ...	1	.....	
	Mysore ,, ...	1	.....	
	Limbdi ,, ...	1	... ..	
	Total ...	13	4	

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APPENDIX F.

BOMBAY VETERINARY COLLEGE.

Distribution of Government and Municipal Free Students, 1st April 1891.

Position.	Present in April 1890.		Joined since.		Retired or Passed.		Remained in April 1891.		Remarks.
	Government.	Municipal.	Government.	Municipal.	Government.	Municipal.	Government.	Municipal.	
Passed Final Examination ...	...	...	...	...	4	...	...	...	
Remained in Class C	1	...	...	...	...	...	...	...	
Passed 2nd Professional Examination	3	...	...	...	...	...	2	2	
Remained in Class B	1	...	...	...	2	...	...	...	
Joined Class B	1	2	1	...	...	...	1	...	
Passed 1st Professional Examination	2	...	...	...	...	...	1	1	
Remained in Class A	...	...	...	...	...	...	2	...	1 also attended Class B.
Joined Class A	3	1	3	...	...	...	3	...	
Total ...	11	3	4	...	6	...	9	3	

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APPENDIX G.

Bombay Veterinary College.

Return of the Names, present Pay and Appointments of the Graduates of 1890.

Number.	Names.	Present Pay.	Present Occupation.
		Rs.	
1	Sadasiva Narayan Savardikar ...	50—100	Superintendent, Kolhápur State Paddock.
2	Caetaninho Francisco Albuquerque...	...	Veterinary Practitioner, Zanzibar.
3	Arthur Doyle Bingham ...	...	Do. Poona.
4	Maneckji Kavasji Patel ...	...	Left profession.
5	Mahomed Shumsoodin	50	Assistant Veterinary Superintendent, Hyderabad Assigned Districts.
6	Bernard Cajitano Godinho ...	...	Student, Grant Medical College.
7	Sakharam Baji Kulkarni ...	50	Acting Veterinary Officer, Dhulia.
8	Mulchand Keshowlal Desai ...	50	Superintendent, Junágad State Paddock.
9	Karunashankar D. Joshi	25	Assistant Veterinary Officer, Bombay Veterinary College.
10	Francis Fernandez	...	Veterinary Practitioner, Belgaum.
11	Nanabhoy Narsingrao	...	Do. Bombay.
12	Jehangir Dhanjishaw Parekh ...	100	Burma.
13	Dhondo Shamji Modak... ...	40	Veterinary Officer, Sángli State.
14	Dinkar Hanmant Sirke... ...	60	Do. Scindia's Cavalry.
15	Hari Ramchandra Kshirsagar ...	50	Assistant Veterinary Superintendent, Hyderabad Assigned Districts.
16	Dadabhai Hari Somnay ...	50	Baroda Service.
17	Arthur Francis Quadros ...	70	Veterinary Officer, Cambay State.
18	Manick Sheshia Naidoo ...	25	Assistant Veterinary Officer, Bombay Veterinary College.
19	Gustadji Pestonji Nariman ...	25	Do. do.

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APPENDIX H.

Bombay Veterinary College.

Return of Lectures and Demonstrations during 1890-91.

Class.	Subject.	Teacher.	No. of Lectures.	Remarks.
Class C. ...	Medicine and Surgery ...	Principal ...	*146	* 65 by Professor Steel and the remainder by Dr. Nariman.
	Clinical	Do. ...	†123	†65 by Professor Steel and the remainder by Dr. Nariman.
	Hospital Practice... ...	Principal and Assistant Professor.	‡179	‡ Since 5th December Principal was not assisted by the Assistant Professor.
	Hygiene	Professor Steel ...	10	
	Therapeutics	Do. ...	8	
	Prescribing, &c.	Do. ...	8	
	Methods of *post-mortem* Examination.	Do. ...	6	
	Obstetrics	Do. ...	10	
	Operative Surgery ...	Dr. Nariman ...	6	
	Bacteriology	Do. ...	10	
	Microscopy	Do. ...	10	
	Pathological Anatomy ...	Do. ...	8	
	Theoretical Shoeing ...	Instructor in Chemistry .	10	
	Sanitary Science	Do. ...	10	
	Examination as to Soundness ...	Do. ...	7	
	Toxicology	Instructor in Shoeing ...	4	
	Surgical Anatomy... ...	Do. ...	10	
	Breeding and Rearing ...	Do. ...	4	
	Practical Shoeing	Do. ...	42	
Class B. ...	Medicine and Surgery ...	Assistant Professor, &c...	§91	§30 by Messrs. Nursingrao and Parakh and 61 by Mr. Dakmarvala.
	Hospital Practice	Principal and Assistant Professor.	179	
	Clinical	Principal ...	55	
	Anatomy	Instructor in Anatomy, &c.	103	
	Physiology	Do. ...	69	
	Dissection	Do. ...	90	About 20 subjects.
	Chemistry	Instructor in Chemistry, &c.	30	
Class A. ...	Demonstration	Principal, &c. ...	‖ 59	‖ 20 by Professor Steel, 22 by Mr. Vakharia and 17 by Mr. Parakh.
	Clinical	Assistant Professor ...	30	
	Chemistry and Botany ...	Instructor in Chemistry, &c.	180	
	Materia Medica and Pharmacy .	Principal ...	49	
	Anatomy	Instructor in Anatomy, &c.	79	
	Physiology	Do. ...	38	

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APPENDIX I.

Bombay Veterinary College.

Return of the Number and Nature of Books added to the Library in 1890-91.

No.	Name of Class.	In Library added in 1886-87.	In Library added in 1887-88.	In Library added in 1888-89.	In Library added in 1889-90.	Total number of Books in Library on 1st April 1890.	Added in 1890-91.	Total number of Books in Library on 1st April 1891.
I	Chemistry	11	1	1	4	17	1	18
II	Botany	9	...	8	1	18	...	18
III	Materia Medica, Pharmacy, &c.	18	6	9	3	36	2	38
IV	Veterinary Surgery and Medicine.	88	27	30	12	157	3	160
V	Diseases and Management of Dogs.	...	2	2	1	5	...	5
VI	Anatomy and Zoology ...	32	2	12	3	49	1	50
VII	Physiology	7	...	8	4	19	1	20
VIII	Sanitary Science, &c. ...	11	3	...	5	19	1	20
IX	Animal Management ...	22	1	29	2	54	1	55
X	Journals and Reports ...	9	99	30	1	139	...	139
XI	Government Reports ...	29	8	17	13	67	...	67
XII	Miscellaneous	25	13	16	17	71	...	71
	Total books in the Library...	261	162	162	66	651	10	661

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APPENDIX J.

Financial Statement of the Bombay Veterinary College, 1890-91.

Income. Heads.	1889-90. Rs. a. p.	1890-91. Rs. a. p.	Expenditure. Heads.	1889-90. Rs. a. p.	1890-91. Rs. a. p.	Remarks.
From Government—						
Salaries—						
Teaching Staff	20,760 0 0	18,360 0 0				
Establishment	1,320 0 0	1,320 0 0				
Contingent	500 0 0	506 0 0	Teaching Staff	20,034 0 9	15,725 12 3	
Scholarships	900 0 0	900 0 0	Establishment	1,312 13 5	1,317 13 10	
Chemicals, &c.	700 0 0	200 0 0	Contingent Expenditure ...	391 7 2	354 4 6	
Instruments	.....	300 0 0	Scholarships	870 0 0	895 0 0	
Examiners' Fees	300 0 0	300 0 0	Chemicals, &c.	961 9 3	290 3 5	
House-rent Allowance	720 0 0	1,020 0 0	Examiners' Fees	575 0 0	.....	
Books, Diagrams, &c.	.....	94 0 0	House-rent Allowance	895 0 0	615 7 9	
Travelling Allowance	400 0 0	400 0 0	Travelling Allowance	188 4 0	79 8 0	
Furniture and Apparatus	.....	850 0 0	Furniture and Apparatus ...	122 15 9	603 8 0	
*From Bombay Municipality	2,500 0 0	2,500 0 0	Buildings and Repairs	3,341 6 5	451 13 10	
*Sale-proceeds of Packing Materials ...	.....	6 4 0	Instruments	.....	298 0 0	
*From Students' Fees	2,600 0 0	2,047 8 0	Books, Diagrams, &c.	.....	94 0 0	
Buildings and Repairs	3,597 0 0	423 0 0	Furniture for Patho-Bacteriological Liboratory	.....	700 0 0	
*Rent of Students' Quarters	.....	34 0 0	Honorarium to the three Assistant Veterinary Officers	.....	513 11 4	
Special Charges, Patho-Bacteriological Laboratory	.....	2,000 0 0				
Total Rs. ...	34,297 0 0	31,260 12 0	Total Rs. ...	28,692 8 9	21,939 2 11	

Note.—The items marked* show actual receipts of the College, while the other items merely denote budget provision.

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APPENDIX K.

Return of Prizes, &c., awarded to Students of the Bombay Veterinary College.

No.	Subject.	Nature.	Value.	Sucessful Candidate in 1890-91.	Donor's Name.
			Rs.		
1	Clinical Records	Medal	15	J. D. Parakh	B. V. College.
2	First in Professional Examination ...	Books	50	A. H. Engel	Sir Dinshaw Maneckji Petit, Bart.
3	Practical Anatomy, Class B.	Do.	50	I. Vaz	Honourable Mr. Justice Bayley.
4	Essay on Professsional Subject ...	Microscope	32	B. Godinho	Veterinary Surgeon (1st Class) J. K. Grainger.
5	Hygiene, Sanitary Science, and Obstetrics .		25		Dr. S. K. Nariman.
6	Handling of Animals	A scholarship	60	A. H. Engel	Late Professor J. H. Steel.
7	*Post-mortem* Records	A small pocket case	25	G. W. Shandernikar	Do. do.
8	Second in Professional Examination ...	Books	25	S. N. Savardikar	Do. do.
9	General Practical Proficiency or conjoined Professors' Prize.	Microscope...	60	H. E. Browne	Do. do. and Dr. Nariman.
10	Bovine Pathology	Books	25	M. K. Patel	Dr. S. K. Nariman.
11	Results of Examinations	Government scholarships 15, each Rs. 60.	900	(1) Engel; (2) Browne; (3) Javle; (4) Vaz; (5) Misquita; (6) Haji; (7) Shah; (8) Mahomed Khan; (9) C. F. Fernandez; (10) Judah Hyam; (11) Rathod; (12) Pitke; (13) Padar; (14) Vedh; (15) Laskari.	
		Total ...	1,267		

S. K. NARIMAN, M.D.

4th June 1891.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

Colleges—Veterinary College, Bombay.
Administration Report of the—for the year 1890-91.

No. 1605.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 7th August 1891.

Letter from the Director of Public Instruction, No. 2349, dated the 20th July 1891—Submitting a copy of the report of the Bombay Veterinary College for the year 1890-91, and requesting that the report may be distributed as soon as possible, especially to the Sanitary authorities and the officers who will advise Government as to the location of the College.

RESOLUTION.—Although the Director of Public Instruction will doubtless include in his annual report some observations on the work of the Bombay Veterinary College for the past year, the Governor in Council would have been glad to have received and considered his detailed comments on the report at this stage. Whilst the institution is feeling its way, it is desirable that its progress should receive annually a special review at the hands of Government, and the Director's criticisms will materially assist Government in the task.

2. The number of students continued to decline. At the end of 1888-89 there were 75 on the rolls, and at the end of 1889-90 there were 49; but the number on 31st March last was only 42. On the other hand the entries in the year were 15 against 11 in the previous year. The recruits have joined the College from Lahore and Faizabad in the north, from Mysore in the south, and from Indore in Central India. Within the Presidency Limbdi and Bhavnagar in Káthiáwár, and the Kolhápur State have sent pupils. The Local Board in Hyderabad (Sind) has contributed one, Poona has sent two, and the Bombay City supplies five. It is, therefore, clear that the College is needed to supply a widely felt want. Nor is there much reason to complain of the practical illustration afforded of this demand by the employment of the graduates who left the College. 19 graduates left the College, and all who desired it have found employment. One has gone to Zanzibar, and others have been taken into the service of the Native States of Junágad, Kolhápur, Sángli, Gwalior, and Cambay. Government have lately received inquiries from Ceylon regarding the engagement of a Veterinary Surgeon, and there is abundant evidence that Veterinary Science can command an extended market. Under these circumstances it appears to Government premature to guarantee appointments annually for the graduates as suggested in paragraph 5 of the report. The open market, the demands of the Native States, and those of Local Boards, will do more than Government either ought, or can undertake, to do. As was observed in Government Resolution No. 7933, dated 7th November 1890, the future prosperity of the College will depend not only on the number of its graduates who may obtain employment, but also on the success of those graduates. The efforts of Government must principally be directed to the administration of the College, and it is clear from the report that much remains to be done in this direction.

3. The position of the College, its course of instruction, and the provision of a competent teaching staff with suitable accessories are the three points of immediate importance. As regards the first of these subjects, the condition of affairs disclosed in paragraph 16 of Dr. Nariman's report is most serious, and the attention of the Sanitary Commissioner, of the Municipality, and of the Society for the prevention of cruelty to animals and the Bai Sakarbai Dinshaw Petit Hospital for animals should be at once called to it. This is more than an educational question, merely affecting the prospects of the Veterinary College, and a copy of the report should be transferred to the General Department for the issue of orders, and final disposal of the matter in consultation with the Sanitary officers. The facts narrated not only have a bearing on the deeply regretted loss of Veterinary Surgeon Steel, the recent sickness of the present Principal, and the list of casualties contained in the report, but they justify a very serious alarm for the health of the population of Parel. The matter, therefore, requires the very early attention of the General Department. From the educational point of view, Government are now forced to consider whether the advantages gained by the connection with the Society and the Hospital, or even by the provision of the Patho-Bacteriological Laboratory, can outweigh the dangerously unhealthy surroundings of the Veterinary College. The Principal of the College of Science has been directed to report on the possibility of transferring the College to Poona, and Government will await his report with interest.

4. Regarding the plan of education, it is observed that the revised course of instruction, prepared by the late Mr. Steel, left Class C insufficient leisure for practical work, and overloaded both teachers and students. Changes in the curriculum were therefore proposed by the last Examination Committee and sanctioned in Government Resolution No. 1487, dated 22nd July 1891. The syllabus of the College course also needs revisal. On this subject Government hope to receive at an early date the opinion of Mr. Rayment and the detailed suggestion of the Director of Public Instruction.

5. The provision of teaching staff has been rendered more difficult by the ill-repute of the College premises in a sanitary point of view. Government believe that they have secured the services of an able Principal, and the College possesses in Dr. Nariman an officer who commands deserved confidence. The instructors sanctioned by Government Resolution No. 9422, dated 14th December 1889, are considered a great improvement on the old system. The post of instructor in practical shoeing has not yet been filled. Dr. Nariman's report shows that the re-organization scheme has worked well, and every year's practice should make the teaching more efficient.

6. Amongst matters of minor detail Government observe that a cesspool is urgently needed as stated in paragraph 15. It is presumed that a proposal for its provision will be separately submitted to Government. The proposals regarding the water-supply and gas for the Laboratory will be considered if the College remains in Bombay. The total cost to Government on account of the College was Rs. 17,400 out of a total expenditure of Rs. 21,939-2-11.

7. In reviewing the last report Government expressed their sense of the energy, devotion and skill with which Mr. Steel had performed his multifarious duties, and it is with deep regret that the Governor in Council must recognize that he sacrificed his health for the good of the College. It is, therefore, the imperative duty of Government not to subject his successor or the other officers of the College to the avoidable risks of an insanitary neighbourhood. If the efforts of the Municipal authorities and the Hospital Managers are not equal to the task of removing a nuisance that is a menace to the public health of Parel, the transfer of the College elsewhere will be necessary. Dr. Nariman has written an interesting report, and the acknowledgments of Government are due to him and the rest of the College staff for their successful discharge of their duties.

W. LEE-WARNER,
Secretary to Government.

To

The Director of Public Instruction,
The Principal, Bombay Veterinary College,
The Commissioners of Divisions and Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Political Department of the Secretariat,
The Political Agents, Káthiáwár, Cutch, Kolhápur and Southern Marátha Country, and Mahi Kántha,
The Political Superintendents, Pálanpur and Sávantvádi,
The Political Resident, Aden,
The Superintendent, Horse-Breeding Operations,
The Municipal Commissioner for the City of Bombay,
The Accountant General, Bombay,
The Director of Land Records and Agriculture,
The Principal of the College of Science, Poona,
The Military Department of the Secretariat,
The General Department of the Secretariat,
The Revenue Department of the Secretariat.
The Sanitary Commissioner,
} With copies of the report.

The Editors' Table, Bombay,
The Editors' Table, Poona (care of the City Magistrate, Poona),
The Editor and Proprietor, *Dhárwár Vritt* (for his own use and for circulation to other Editors of News papers in Dhárwár.

The President, Municipal Corporation, Bombay,
The Government of India,
The Secretary of State for India.
} By letter.

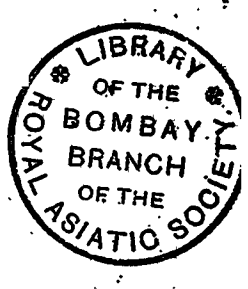
The Secretary to the Prevention of Cruelty to Animals (by letter).

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

FOR THE YEAR 1892-93.



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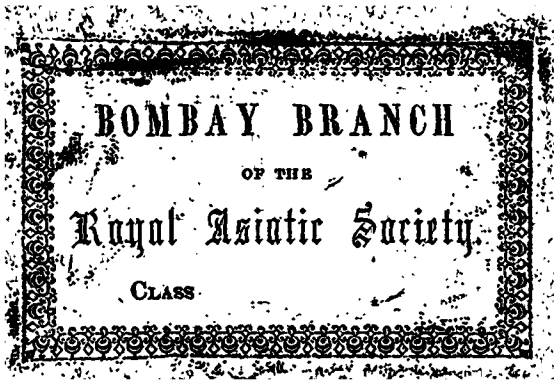

BOMBAY BRANCH
OF THE
Royal Asiatic Society.
CLASS

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

FOR THE YEAR 1892-93.

K-37

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1893.

13348C

No. 398 of 1893.

Government Veterinary College, Parel:
Bombay, 23rd June 1893.

From

JAMES MILLS, M.R.C.V.S., J.P., F.B.U., Vety.-Capt., A.V.D.,
Principal, Bombay Vety. College;

To

R. G. OXENHAM, Esquire, M.A.,
Acting Director of Public Instruction, Poona.

Sir,

I have the honour to submit the seventh annual report of the Bombay Veterinary College, treating of the work during the official year ending 31st March 1893. A synopsis of the work done in connection with the Bái Sákarbái Dinshaw Petit Hospital for Animals for the year ending 31st December 1892 is embodied in the report.

2. The professional examinations commenced on the 25th April 1892, and terminated on the 4th May. The Board consisted of the following gentlemen :—

President.

Veterinary Lieutenant-Colonel C. Clayton, A. V. D., Inspecting Veterinary Officer, Bombay Army.

Members.

Veterinary Lieutenant H. T. Pease, A. V. D., Bacteriological Laboratory, Poona.

Veterinary Lieutenant V. L. Rose, A. V. D.

Dr. M. G. Deshmukh, B.Sc., Assistant Chemical Analyser to Government.

Dr. S. K. Nariman, B.Sc., L.V.Sc., Assistant Professor, Veterinary College.

Mr. V. E. Vakharia, G.B.V.C., Lecturer on Chemistry, Veterinary College.

Secretary.

Veterinary Captain James Mills, A. V. D., Principal, Bombay Veterinary College.

The final meeting of the Board and Members of the teaching staff took place on the 4th May, when the results were declared, which will be found in Appendix A. The prizes were at the same time awarded, *vide* Appendix B.

It will be seen from Appendix A that only 18 candidates passed in the three classes out of the 38 that presented themselves for the examinations, thus reducing the percentage of successful students from 57 to 47·4 on comparing the results with those of last year with the year under report. This reduction is mainly due to only 5 out of the 18 candidates having satisfied the examiners at the Diploma examination. This, to an extent, I think, is due to the changes that took place during the year in the office of Principal of the College, which always must more or less tell on students; and again those who failed in their final examination were for the major portion plucked in Medicine and Surgery, where the percentage of marks for a pass is higher than in all other subjects. In consequence of this the Board of Examiners made the following recommendation to Government, which has, in their Resolution, Educational Department, No. 1367 of 27th June 1892, been approved of and Rule 13 section "C", of the College Rules and Regulations has been altered accordingly:—"5. It was resolved that,

as there was a great disparity in the standard of marks required by the College Rules and Regulations for a pass in the final as compared with the first and second professional examinations, unless the standard for the final be reduced, better results cannot be expected." The Board, therefore, beg to strongly recommend that Rule 13 section "C", of the College Rules and Regulations, which reads as follows :—"13. In the third professional examination 50 per cent. marks in (*a*) diseases of the horses, (*b*) diseases of the ox, &c., and of the other subjects not less than one-third marks, also a general total of 50 per cent. shall be necessary for a pass" be expunged and the following rule be substituted :—" 13. In the third professional examination one-third marks in each subject and a general total of 50 per cent. shall be necessary for a pass."

Constitution of the Board of Examiners.

3. My proposals regarding the constitution of the Board of Examiners have been deferred pending the question of the location of the Bacteriological Laboratory at Poona, *vide* Government Resolution, Educational Department, No. 547 of 18th March 1893.

Number of and changes in students.

4. On the 1st April 1892 there were 39 students on the College rolls. 14 fresh students entered during the year, 16 students left the College, 5 of whom obtained the diploma of Graduate, 1 proceeded to Edinburgh to study for the diploma of the Royal College of Veterinary Surgeons, 1 died, 2 were rusticated (1 of whom was allowed to resume his studies at the end of six months), 5 on account of having failed to pass, and 2 left because they were unable to cope with the work of the College. Assistant Apothecary MacQueen of His Excellency the Governor's Establishment and Sub-Conductor Kettle, Commissariat Department, attended as casual students. Two students from the Elphinstone College, studying for the Bachelor of Science degree, attended for the purpose of gaining a knowledge of the anatomy of the domesticated animals.

The entries during this year were an increase of 5 as compared with the previous year, and decidedly a better stamp of men for the work. The changes in the number of students are shown in Appendix C.

Information relating students.

5. Appendix D gives the number of students of each nationality on the College rolls during the year under report. It is satisfactory to note that in the new admissions there are 2 Europeans, 3 Eurasians, and 1 Portuguese. Appendix E shows the number of students attending supported by Local Fund Boards and Native States. It will be observed from this return that out of those 10 men 8 are Hindus, 1 a Budhist, and only 1 is a Mahomedan. I must repeat what I wrote in last year's report that their selection should be left more in my hands than at present is the case, because some of them are by no means suitable for the severe practical training we now give them, and such men as a rule turn out neither a credit to me nor the Local Fund Boards or Native States who send them to study.

Employment of graduates.

6. The prospects of suitable and remunerative employment for the College Graduates have decidedly improved during the year under report. The Government Remount Depôt at Ahmednagar gave two appointments at Rs. 100 per mensem each. Two graduates are employed under Act XX of 1879, Glanders and Farcy, in Bombay, one as a Veterinary Inspector for the city, and the other as Port Veterinary Surgeon, on salaries of Rs. 50 per mensem with Rs. 15 travelling allowance. One as Veterinary officer for Karáchi at Rs. 100 per mensem plus Rs. 25 house rent. One as Veterinary officer, Hyderabad, Sind, at Rs. 100 per mensem. One as Veterinary officer at Jámnagar State at Rs. 75 per mensem. One Veterinary officer, Rámpur, Rohilkhand District, at Rs. 80 per mensem. One as Itinerating Veterinary officer at Belgaum at Rs. 50 per mensem with a travelling allowance of Rs. 15. One Veterinary officer, Morvi State, on Rs. 50 per mensem.

Sángli State, after binding their stipendiary student to serve them, on obtaining his diploma, for three years, on a salary of Rs. 30 per mensem, refused at the termination of this period to increase this pittance and the man was

compelled to resign, but fortunately I obtained for him a situation at Belgaum as Itinerating Veterinary officer.

Applications have been received for two suitable graduates for employment at the Calcutta Veterinary Institute, for three at the Ajmere Veterinary School, and two for the Khándesh Collectorate, but none will be available until the termination of this collegiate year. Appendix F will give particulars how all graduates are employed.

Contagious diseases.

7. Mr. C. F. Fernandez, G.B.V.C., was appointed Itinerating Veterinary Inspector for the City and Port, Government Resolution, Judicial Department, No. 3126 of 11th June 1892, and Mr. I. V. Vaz, G.B.V.C., was appointed Harbour Veterinary Surgeon, Government Resolution, Judicial Department, No. 5531 of 7th October 1892. Both have done excellent work.

Foot and mouth disease has not prevailed to any serious extent during the year; a few isolated cases took place from time to time which were treated at the Government lazaretto at Sewri.

Glanders and Farcy.—In connection with Act XX of 1879, Glanders and Farcy, the lazaretto has been completed at Sewri at a cost of Rs. 2,901-5-11, for the segregation of suspected cases and the destruction of confirmed ones. The lazaretto consists of six loose boxes for horses and two sheds to accommodate fifty cattle, office, store-room and a "Mills' Cinerator" for the cremation of the carcases of animals that have been destroyed or died. Sanction has been asked for the erection of a bullock trevis, which is much needed. No water has been as yet laid on to the lazaretto, the want of which is a great drawback, as water has to be brought from a considerable distance.

Since the completion of the lazaretto on the 11th June 1892, 26 confirmed cases of glanders were destroyed, 14 cases were admitted as suspects, 11 of which eventually were destroyed and 3 were discharged.

The majority of horses destroyed for glanders belonged to the owners of carriages plying for hire in the City, next come the Arab dealers at Byculla, and a few to private individuals. The figures stand as follows:—

Owners of carriages plying for hire 24. Arab stables 10. Private individuals 3. A "hack-ghárry" stable in the Bhendy Bazár is notorious for glanders; no less than 12 cases were removed from this stable alone, which is an extremely serious matter, but, of course, little good can be done unless the law permits systematic periodical inspection.

In the Arab dealers' stables, three cases came from Ali Bin Amer's, three from Umar Jamal's, and four from Sulliman Bin Daud's. Glanders, according to the information supplied by the Commissioner of Police, must be on the increase in the Arab stables. For the year 1889 there were four cases; in 1890 one case, in 1891 two cases, whereas for the year 1892-93 there were ten cases, one more than in whole of the three years quoted. 1,827 horses were examined by the Itinerating Veterinary Inspector during the ten months he has been employed. 4,306 horses have been imported during the year; of these, 3,135 came from the Persian Gulf, 16 from England, 798 from Australia, and from Indian ports 357.

Only one case of glanders was discovered on board ship, the S. S. "Oriental," belonging to the British India Steam Navigation Company, which brought a cargo from the Persian Gulf.

Three vessels passed through the port conveying a total of 45 horses.

Glanders broke out in the town of Karáchi in October last. Six cases were reported to this office and a vigilant watch has been kept on vessels coming from that Port.

49 cattle were imported into Bombay by sea during the year, but as there is no "Cattle Disease Act" in force, they could not be inspected. I am however making this matter the subject of a special report to Government.

The appointments of Messrs. Stephens and Sons, of Dr. Narimán, and Messrs. Narsing Rao and Bharucha as Veterinary Surgeons under Act XX of 1879, have been cancelled, and H. Rogers, Esq., M.R.C.V.S., of Messrs. Scott and Co., and F. Stephens, Esq., M.R.C.V.S., of Messrs. Stephens and Sons, have been appointed Veterinary Surgeons for the City and Island of Bombay including the Port.

Rabies and Hydrophobia.—Five cases of rabies were admitted to the hospital. 8,364 stray dogs were destroyed by the Police in 1892-93 as against 6,796 in the previous year, an increase of 1,568 animals. I hope to be able during the next official year to submit plans of a lethal chamber for the humane destruction of dogs. Three deaths took place in the city of Bombay from hydrophobia, which shows a large decrease as compared with 1891-92, which stands at 7. This indicates to an extent that rabies was not so prevalent this year.

Extra duties.

8. The following extra duties were performed by the Principal of the College :—

(*a*) Visited Jámnagar State to castrate the remounts of the Imperial Service Troops.

(*b*) Acted as Examiner at the Bombay University in veterinary medicine and surgery for the diploma in agriculture.

(*c*) Attended Police Court to give evidence on behalf of the Society for the Prevention of Cruelty to Animals.

(*d*) Inspection of horses at the Harbour and frequently at the Lazaretto.

(*e*) Assisted Veterinary Colonel Hallen in examining horses as to soundness for the Horse-Breeding Department.

(*f*) Advice as to the management and treatment of animals in the Victoria Gardens and opinions as to the cause of death of various animals.

(*g*) Reviewed the annual reports of the graduates of this college in charge of the veterinary dispensaries and itinerating appointments in the Ahmedabad, Kaira, Násik and Khándesh Districts.

(*h*) Advising the Commissioner of Police in regard to the working of Act XX of 1879, Glanders and Farcy, and examining horses as to soundness for the Mounted Police.

(*i*) Reporting upon the quality of grains and grasses for the Commissariat Department.

(*j*) Advising the Military Department as to the construction of the stable floors of His Excellency the Governor's Body Guard at Poona.

Mr. V. E. Vakharia, Lecturer on Chemistry and Botany, was deputed to visit the Horse-Breeding Department Depôt farm, at Babugarh, and to attend the Christmas course of lectures held there.

Teaching staff.

9. As mentioned in my last report I have obtained the services of Farrier Sergeant Evans, late of the Royal Artillery, as Instructor in shoeing, who joined on the 8th May 1892, vice Mr. H. S. Bottliwala, whose services were dispensed with. Farrier Evans has worked hard since he joined and the students have shown a marked improvement under him. Mr. N. D. Dhakmarwala, Lecturer on Anatomy, and Mr. V. E. Vakharia, Lecturer on Chemistry, have given me every satisfaction in the performance of their duties. Dr. S. K. Nariman, Assistant Professor and Resident Officer, appeared before a Medical Board on the 24th February 1893, and obtained nine months' sick leave to Europe which he availed himself of on the 22nd of March. No one being available to take Dr. Nariman's place, his duties have been divided between the Principal and the Lecturers on Anatomy and Chemistry. Pending sanction being accorded to my request for an European officer to fill the appointment of Assistant Professor as a permanency, I have recommended that Mr. N. D. Dhakmarwala be gazetted Acting Assistant Professor and Resident Veterinary Officer.

The health of the college staff has on the whole been better this year than last, which I feel inclined to attribute to the sanitary improvements that have taken place in the College and Hospital compound.

10. *Anatomy.*—Twenty-one subjects were dissected during the year, an increase of four over the previous year.

Branches of study.

Physiology and Chemistry.—These classes were conducted on the same lines as last year.

Botany.—The want of a botanical garden for growing important plants, fodder, medicinal, and poisonous, has to some extent been removed by railing in as a garden a portion of the compound of the Sewri Lazaretto. This should prove a great help for practically demonstrating to the students the characteristic appearances of the various plants, but it is feared, full advantage of the ground can only be taken during the monsoon, as there is no water-supply at the Lazaretto.

Medicine and Surgery.—Work in the surgery branch has been carried on under very trying difficulties and with danger to my health, as operations are prohibited in the hospital by the Society for the Prevention of Cruelty to Animals; in consequence of this, cases must be taken to the Lazaretto, and on operation days, which have been frequent during the last sessions, I have been compelled to work all day in a broiling sun with no other protection than a thin chupper roof.

Shoeing.—A Farrier Sergeant having been appointed to take charge of the forge, a sound course of practical shoeing was carried on, which was of great benefit to the students. The work in the forge is on the increase, whereas under the old regime it was practically nil.

Hygiene.—The Farrier Sergeant gave a course of instruction in grooming, clipping, saddle and harness fitting, and in pack saddle work. The Commissariat Department kindly supplied mules and equipment for the latter.

11. His Excellency the Governor again kindly placed at the disposal of the students a given number of horses of the Body Guard, under a native riding master to teach the men of class C, for which I beg here to thank His Excellency. Government have sanctioned a grant of Rs. 16 per student being paid to the Officer Commanding the Body Guard for tuition in riding. Most of the students did very well in this branch, but a few of them were timid and will never become good riders.

Physical Training.

Cricket.—Two matches were played during the season one against the Indian Marine Officers Cricket Club and the other with the G. I. P. Apprentices Cricket Club, in the former we were defeated, but gained a decided victory in the latter.

Sports.—The annual sports in connection with the anniversary of the opening of the College were held on the 2nd August.

12. Many specimens have been added to the museum during the year. A number of new books have been purchased for the library. Catalogues both for the museum and library have been compiled and printed for the first time in the history of the College, and a much-needed want has now been supplied. The following journals have been kindly sanctioned by Government for the College:—

Museum and Library.

1. Lancet.
2. Veterinary Journal.
3. Veterinarian.
4. Veterinary Record.
5. Journal of Comparative Pathology.
6. The Zoologist.
7. Nature.
8. The Animal World.
9. The Scientific American.
10. Horse and Hound.

13. I beg to thank the following gentlemen, who have been kind enough to give prizes to the students of the College:—

Donors of prizes.

The Honourable Mr. Justice Bayley.
Veterinary-Captain J. W. A. Morgan.
Dr. S. K. Nariman.

The annual prize of Rs. 60 presented by Sir Dinshaw Maneckjee Petit, Bart., was not available for award. The Honourable Mr. Justice Bayley signified his intention to discontinue giving his annual prize of Rs. 50. Veterinary-Captain J. W. A. Morgan kindly continued the prize awarded by his predecessor in the Horse-Breeding Department, Veterinary-Major Grainger.

Visitors.

14. His Excellency the Most Honourable the Marquis of Lansdowne, Viceroy and Governor General, accompanied by His Excellency the Right Honourable Lord Harris, visited the College and Hospital on the 3rd April.

Veterinary-Colonel J. H. B. Hallen, C.I.E., Inspector General, Civil Veterinary Department, kindly delivered a lecture at the College on the 21st November on Laminitis.

His Highness the Thákor Sáhib Mansingji of Pálitána and suite paid a visit on the 26th December.

Mr. K. M. Chatfield, Director of Public Instruction, paid an official visit on the 13th January.

Honours.

15. His Excellency the Governor in Council was pleased to honour the Principal by nominating him a Fellow of the Bombay University, and a Justice of the Peace.

Minor buildings.

16. A cistern was erected in the dark-room for photography, and a cess-pit built outside the pharmacy.

Bombay Veterinary Association.

17. This Association still continues to afford valuable aid to the students of the College, and many interesting papers were read during the year.

Hospital.

18. The records of the hospital give the following information relative to patients:—

(*a*) *In-patients.*—1,705 cases were admitted in 1892 as compared with 1,738 in 1891, showing a decrease of 33. The various classes of animals admitted were as follows:—

Horses 258, cattle 1,238, dogs 209. The daily average was 163, this stood at 158 in 1891, an increase of 5.

(*b*) *Out-patients.*—894 cases were treated. The number in 1891 was 874, an increase of 20.

(*c*) *Mortality.*—The rate of mortality in horses, cattle and dogs was higher than in 1891.

(*d*) *Stable management.*—I have invented a new composition for stable floors, which has been experimented with in the hospital and proved most successful. It renders the floors impermeable to moisture, firm and unbreakable. I have also introduced the dry earth system, which is working well and has produced a marked change for the better in the sanitary condition of the stables.

(*e*) *Buildings.*—A new cattle-shed to accommodate 38 animals has been built by Bai Dinbai, widow of Mr. Nasarwanji Maneckji Petit, at a cost of Rs. 6,000. As a model of what a cattle-shed, built on sound sanitary principles, should be, I consider it as one of the most perfect in India.

(*f*) *Ground ventilators* have been constructed throughout all the stables, which is a decided improvement.

(*g*) *Sanitation.*—Many of the suggestions of the Committee appointed last year to enquire into the sanitary condition of the College and Hospital have been carried out, notably lopping and cutting down trees, filling up and raising the level in various parts of the compound, and the contents of cesspools carted to Mahálakshmi.

(*h*) *Work of Hospital.*—I have been ably assisted in the Clinical Department of the hospital by Messrs. Dhakmarvala and Vakharia, and the three Assistant Veterinary Officers.

(*i*) *Management.*—There has been a great improvement lately in the management of the hospital, and the Manager, Mr. J. B. Daver, and his subordinates, have given me every satisfaction.

19. Appendix G is the financial statement of the College, including Sewri Lazaretto and the Harbour Veterinary-Surgeon, for the year. From it, it will be seen that the amount of Rs. 28,548 was spent for the College proper, an increase of Rs. 453 over the previous year, and of Rs. 6,609 over the year 1890-91. Deducting the actual receipts, the cost to Government of maintaining the College was Rs. 24,733. The increase in the expenditure is due to the increments on the salaries of officers, and expending fully the grants of house-rent to the Farrier, and the Sir Dinshaw Maneckji Petit Patho-Bacteriological Laboratory. Amalgamation of the latter grant with similar heads in the College Budget has been effected with the consent of the Accountant General. The Government permitted to enter permanently the grant of Rs. 200 for chemicals, &c., in the Annual Budget, also a grant of Rs. 300 as fees for the use of the horses of His Excellency the Governor's Body Guard for instructing the students of the College in riding.

Financial statement.

The total expenditure incurred on account of the Sewri Lazaretto and the Harbour Veterinary-Surgeon was Rs. 4,015. This includes the initial expenditure on buildings, &c., of Rs. 2,962.

20. The general clerical work of the office continues to increase and is too much for one clerk, with the result that a deal of my time is taken up with writing letters which might more profitably be employed in another direction. Mr. V. B. Phatak, my clerk, has worked very hard, and is a most trustworthy and reliable servant.

Clerical work.

21. I have contributed two papers to the Anthropological Society, one a translation from a very old work on the treatment of cattle diseases, written in Támil by a Rishi (a Hindu sage) on the leaf of the Palmyra, Borassus flabelliformis, and another on Two Idiots. My work—the Indian Stock Owners' Manual—has been translated into Kánarese and will shortly be published.

Literary and Inventions.

I have had a model made of the horse-sling invented by me while in England, and which obtained the Diploma of Merit at the Royal Military Exhibition, London, with the view of introducing it into India. I have also invented a bit for the prevention of crib-biting and wind-sucking. Both are about to be patented.

22. In conclusion I trust Government will find that the work of the College and the Hospital has been of a satisfactory nature.

Conclusion.

I have the honour to be,

Sir,

Your most obedient Servant,

JAMES MILLS, Vety.-Capt., A. V. D.,

Principal, Bombay Veterinary College.

APPENDIX A.

Results of April 1892 *Examinations, Bombay Veterinary College.*

Examination.	First Class.	Second Class.	Pass.	Total Candidates.		Percentage of Passes.
				Examined.	Passed.	
First Professional ...	1	4	2	12	7	58·5
Second Professional ...	2	3	1	8	6	75·0
Third Professional ...	1	4	...	18	5	27·7
Total ...	4	11	3	38	18	47·4

JAMES MILLS, Vety. Capt., A. V. D.,
Principal, Bombay Veterinary College.

23rd June 1893.

APPENDIX B.

Return of Prizes, &c., awarded to Students of the Bombay Veterinary College for 1892-93.

No.	Subject.	Nature.	Value.	Successful Candidate.	Donor's Name.
			Rs.		
1	First in Professional Examination ...	.....	...	S. G. Haji	Not available for award.
2	Second do. do. ...	Books...	25	D. G. Kulkarni	Honourable Mr. Justice Bayley.
3	Handling of Animals	Silver Medal	15	W. S. Buckel	Steel Memorial Committee.
4	Practical Anatomy	Books...	25	C. J. Nathani	Honourable Mr. Justice Bayley.
5	Best Practical Student, Class C ...	Do.	50	S. G. Haji	Vety. Capt. Morgan and Vety. Capt. Mills.
6	Hygiene, Sanitary Science and Obstetrics.	Do.	25	J. R. Padar	S. K. Nariman, M.D.
7	Best in Practical Shoeing	Do.	25	A. B. Idnani and J. R. Padar ...	S. K. Nariman, M.D.
8	Results of Examination	Government Scholarships ...	60 each	*Class B.*—Kulkarni, Nathani, Aiyangar, Sane, Seragudinkhan.	
				Class A.—Samuel, Buckel, Joshi, I. G., Stephens, C.	

JAMES MILLS, Vety. Capt., A. V. D.,
Principal, Bombay Veterinary College.

23rd June 1893.

APPENDIX C.

BOMBAY VETERINARY COLLEGE.

Return showing changes in the number of students in 1892-93.

Class.	Number of students on 1st April 1892.	Withdrawals, 1892-93.		Entries, 1892-93.		Number of students on 1st April 1893.	Remarks.
		Number of students left the College.	Number of students transferred.	Number of students transferred.	New entries.		
Class C.	18	9	...	6	...	15	
Do. B.	8	2	6	7	1	8	
Do. A.	13	4	7	...	13	15	
Total ...	39	15	13	13	14	38	

JAMES MILLS, Vety. Capt., A. V. D.,
Principal, Bombay Veterinary College.

23rd June 1893.

APPENDIX D.

BOMBAY VETERINARY COLLEGE.

Table showing number and nationality of students for the year 1892-93.

Caste.	Paying.	Native States, &c.	Government Free.	Total.	Remarks.
Class C.					
Pársi	1	...	2	3	
Hindu	1	4	3	8	
Mahomedan	...	1	2	3	
Portuguese	...	...	1	1	
Total ...	2	5	8	15	
Class B.					
Pársi	1	...	...	1	
Hindu	1	2	...	3	
Portuguese	...	...	1	1	
European and Eurasian	1	...	...	1	
Jew	...	...	1	1	
Budhist	...	1	...	1	
Total ...	3	3	2	8	
Class A.					
Pársi	2	...	...	2	
Hindu	2	2	3	7	
Portuguese	1	...	...	1	
European and Eurasian	3	...	2	5	
Total ...	8	2	5	15	
Grand Total ...	13	10	15	38	

JAMES MILLS, Vety. Capt., A. V. D.,
Principal, Bombay Veterinary College.

23rd June 1893.

APPENDIX E.

Return showing caste and number of students from Native States, Local Boards, &c., of the Bombay Veterinary College.

Province, Presidency or State.	Number of Hindus.	Number of Mahomedans.	Number of Budhists.	Remarks.
Berárs—Nizám's State	1	.....	.....	
Junágad State	1	.....	.....	
District Local Board—				
Shikárpur	1	.....	.....	
Kolhápur State	2	.....	.....	
Mysore State	1	.....	.....	
Bhávnagar State	.....	1	.....	
Limbdi State	1	.....	.....	
Dhrángadra State	1	.....	.....	
Ceylon Government	.....	.....	1	
Total ...	8	1	1	

JAMES MILLS, Vety. Capt., A. V. D.,
Principal, Bombay Veterinary College.

23rd June 1893.

APPENDIX F.

Return of the names, present pay and appointments of the Licentiates of Veterinary Science and the Graduates of the Bombay Veterinary College from 1888-92.

No.	Names.	Present pay.	Present occupation.
	Licentiates of Veterinary Science.	Rs.	
1	Sorabji Kharsedji Nariman, M.D., B.Sc. (Bom.).	300	Resident Veterinary Officer and Assistant Professor, Bombay Veterinary College (on sick leave).
2	Nadirshaw Hormusji Edulji Sukhia, L.M. & S. (Bom.).	...	Veterinary Practitioner, Bombay.
	Graduates of the Bombay Veterinary College.		
3	Vikaji Edalji Vakharia	125	Lecturer, Bombay Veterinary College.
4	Nowroji Dorabji Dhakmarvala ...	125	Do.
5	Jamsetji Cowasji Batlivala	250	Assistant Instructor, Rangoon.
6	Vaghjibhai Desaibhai Patel... ...	40	Baroda State.
7	Mundcur Narayanrao	300	Assistant Superintendent, C. V. D. Madras.
8	Hormusji Sorabji Batlivala... ...	...	Unknown.
9	Nariman Ratanji Kothavala... ...	...	Do.
10	Munchershaw Framji Vakharia ...	75	Market Inspector, Surat Municipality.
11	Jamsedji Edalji Bharucha	...	Private Practitioner, Bombay.
12	Jagannath Keshavram Bhat ...	50	Veterinary Officer, D. L. B., Ahmedabad.
13	Nisarali Fidaali Suliemani	40	Baroda State.
14	Damodar Gopal Abhyankar... ...	...	Receiving education at Medical College, Madras.
15	Purshotam Devaji Maniar	60	Veterinary Officer, Nadiád.
16	Jalejar Rustomji Aria	60	Veterinary Officer, Sir D. M. Petit Stables.
17	Bezonji Sorabji Shroff	...	Unknown.

No.	Names.	Present pay.	Present occupation.
		Rs.	
18	Dhunjibhai Nowroji Patel	...	Private Practitioner, Bombay.
19	Chithumbrum Pillay...	60	Veterinary Lecturer, Agricultural School, Nágpur.
20	Dorabji Sorabji Panthaki	75	Veterinary Officer, Bhávnagar.
21	Sorab Nanabhai Ranina	60	Assistant Veterinary Officer, Bombay Municipality.
22	Sorabji Cowasji Doctor	60	Veterinary Officer, Mounted Police, Mymgyam, Burma.
23	Dhunjibhai Framji Dubash... ...	80	Veterinary Officer, Rámpur State, N.-W. P.
24	Rahamim Ruben	50	Veterinary Officer, D. L. B., Násik.
25	Krishnaji Purshotam Devsthale ...	60	Veterinary Officer, Central Provinces.
26	Govind Dattatraya Khandkar ...	60	Veterinary Officer, Hyderabad Assigned Districts.
27	Jamsetji Ratanji Daruvala	...	Unknown.
28	Sadashiv Narayan Savardikar ...	80	Superintendent, State Paddock, Kolhápur.
29	Caetaninho F. Albuquerque... ...	...	Veterinary Practitioner, Zanzibar.
30	Arthur Doyad Bingham	...	Student, R. V. College, London.
31	Maneckji Cowasji Patel	...	Unknown.
32	Bernard Cajetan Godinho	...	Student, Grant Medical College, Bombay.
33	Sakharam Baji Kulkarni	70	Veterinary Officer, Kolhápur.
34	Mulchand Keshavlal Desai	85	Superintendent, State Paddock, Junágad.
35	Karunashankar D. Joshi	...	Unknown.
36	Francis Fernandez	50	Veterinary Officer, D. L. B. D., Belgaum.
37	Nanabhai Narsingrao	...	Veterinary Practitioner, Bombay.
38	Jahangir Dhunjishaw Parakh ...	150	Veterinary Officer, Nizám's Dominions.
39	Dhondo Shamji Modak	50+15	Itinerating Veterinary Officer, D. L. B., Belgaum.
40	Dinkar Hanmant Sirke	85	Veterinary Officer, Imperial Cavalry, Gwálior.
41	Hari Ramchandra Kshirsagar ...	60	Veterinary Officer, Hyderabad Assigned Districts.
42	Dadabhai Hari Somnay	50	Veterinary Officer, D. L. B., Khándesh.
43	Arthur Francis DeQuadros	75	Veterinary Officer, Cambay State.
44	Maneck Sheshia Naidu	100	„ „ Remount Depôt, Ahmednagar.
45	Gustadji Pestonji Nariman	70	„ „ Rájpipla State.
46	Herbert Evander Brown	...	Student, R. V. College, London.
47	Nowroji Cowasji Kalianvala ...	200	Assistant Surgeon, Rájkot.
48	Bhagvanji Kameshvar Bhat ...	50	Veterinary Officer, Morvi State.
49	Judah Hyam...	50	Interpreter, Army Veterinary School, Poona.
50	Ignatius Vincent Vaz	50+15	Harbour Veterinary Surgeon, Bombay.
51	Oghad Hajubhai Rathod	60	Veterinary Officer, Bhávnagar State.
52	Akbarkhan Subekhan	60	„ „ WadhwánState.
53	Sulleiman Gulam Husan Haji ...	100+25	„ „ D. L. B., Karáchi.
54	Jamsetji Rustomji Padar	75	„ „ Jámnagar State.
55	Asudamal Bagumal Idnani... ...	100	„ „ D. L. B., Hyderabad (Sind).
56	Cajetan Ferdinand Fernandez ...	50+15	Itinerating Veterinary Officer, Bombay.
57	Arthur Charles Chamarette... ...	...	Unknown.

JAMES MILLS, Vety. Capt., A. V. D.,
Principal, Bombay Veterinary College.

23rd June 1893.

APPENDIX G.

Financial Statement of the Bombay Veterinary College, 1892-93.

Income.						Expenditure.						Remarks.
Heads.	1891-92.			1892-93.		Heads.	1891-92.			1892-93.		
	Rs.	a.	p.	Rs.	a. p.		Rs.	a.	p.	Rs.	a. p.	
From Government—												
Salaries—												
Teaching Staff	18,360	0	0	18,360	0 0							
Establishment...	1,368	0	0	1,416	0 0							
Contingent	428	0	0	628	0 0	Teaching Staff	19,355	7	8	21,132	12 0	
Scholarships	900	0	0	900	0 0	Establishment (including Bacteriological						
Chemicals, &c....	200	0	0	200	0 0	Laboratory Servants)	1,379	10	8	1,604	0 0	
Examiners' Fees	300	0	0	300	0 0	Contingent Expenditure	433	2	9	817	9 5	
House Rent Allowance	1,020	0	0	1,020	0 0	Scholarships	900	0	0	900	0 0	
Books, Diagrams, &c.	138	0	0	138	0 0	Chemicals, &c.	1,418	15	0	170	9 4	
Travelling Allowance	200	0	0	200	0 0	Examiners' Fees	.....			300	0 0	
Furniture and Apparatus	536	0	0	336	0 0	House Rent Allowance	884	8	3	991	4 0	
Special Charges, Patho-Bacteriological						Travelling Allowance	129	8	0	180	8 0	
Laboratory	1,000	0	0	1,000	0 0	Furniture and Apparatus	472	14	6	461	1 4	
Buildings and Repairs	1,513	0	0	472	0 0	Buildings and Repairs	1,418	5	7	442	12 0	
From Bombay Municipality	2,500	0	0	*2,500	0 0	Conveyance Allowance	...			350	0 0	
From Students' Fees	1,290	0	0	*1,260	0 0	Books, Diagrams, &c.	339	14	6	301	5 7	
Rent of Students' Quarters	57	0	0	*54	0 0	Furniture for Patho-Bacteriological						
Sale-proceeds of Packing Material ..	.....			*0	14 0	Laboratory	220	7	*1	.....		
						Honorarium to three Assistant Veteri-						
From Government—						nary Officers	1,142	9	3	896	10 8	
Lazaretto—Establishment ...	.....			900	0 0	Lazaretto—Establishment	.....			643	0 0	
„ Purchase of Furniture ...	.....			100	0 0	„ Purchase of Furniture ...	.....			100	0 0	
„ „ of Books ...	.....			61	8 0	„ „ of Books ...	.....			61	8 0	
„ Buildings	.....			3,400	0 0	„ Buildings	.....			2,901	5 11	
Harbour Veterinary Surgeon's Pay and						Harbour Veterinary Surgeon's Pay and						
Allowances	.....			390	0 0	Allowances	.....			309	5 8	
Total ...	29,810	0	0	33,636	6 0	Total ...	28,095	7	3	32,563	11 11	

NOTE.—The items marked * show actual receipts of the College, while the other items merely denote the budget provision.

23rd June 1893.

JAMES MILLS, Vety. Capt., A. V. D.,
Principal, Bombay Veterinary College.

Administration Reports.

Bombay Veterinary College.

Report of the — for the year 1892-93.

No. 1671.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 12th August 1893.

Letter from the Director of Public Instruction, No. 1740, dated the 4th July 1893—Submitting, with reference to this Department memorandum No. 1373, dated the 13th June 1893, a copy of the Report of the Bombay Veterinary College for the year 1892-93.

RESOLUTION.—Though the report will be noticed by the Director of Public Instruction in his annual report on education, the Governor in Council would have been glad to receive his criticisms as desired in Government Resolution No. 1605, dated the 7th August 1891.

2. The number of students at the end of the year was 38 or one less than in 1891-92, of whom 18 were Hindus, 6 Parsis, 3 Muhammadans, 1 Buddhist, 1 Jew, 3 Portuguese and 6 Europeans and Eurasians. Of these 38 students, 13 paid fees, 10 were sent for instruction by Native States or Local Boards, and 15 were free students. As regards students sent up by Native States or Local Boards, the Principal complains that some of them are not suitable for the practical training they receive. No doubt the States and Boards concerned will give due weight to any advice that may be profferred by the Principal in the selection of candidates.

3. The result of the examinations was not satisfactory. 18 students out of 38 passed the examinations against 22 out of 42 in 1891-92; and only 5 out of 18 were given diplomas against 7 out of 18 in the previous year. This it is reported was due partly to changes in the College Staff and partly to failures in the final examination in Medicine and Surgery, in which subjects a higher number of marks is required than in other subjects. On the recommendation of the Examination Board an alteration has been made in the College rules to equalize the number of marks required for a pass in each subject, and it is hoped that the next report will show better results.

4. Appendix F and the facts stated in paragraph 6 of the report afford proof of the growing demand for the services of graduates of the College. Many of the graduates are employed in Native States and British Districts on pay ranging from Rs. 40 to Rs. 300 per mensem; and a few are engaged in private practice. During the year 10 graduates obtained employment on pay from Rs. 50 to Rs. 100 per mensem. The Principal received applications for 7 more graduates from Calcutta, Ajmere and Khándesh, but was unable to comply with them, there being no graduate available.

5. The expenditure on the College amounted to Rs. 28,548 against Rs. 28,095 in 1891-92. The fee receipts amounted to Rs. 1,260 against Rs. 1,290. The appointment of the Principal of the College to be in charge of the Sewri Lazaretto and to be Veterinary Surgeon under the Glanders and Farcy Act, and the appointment of two graduates of the College under the Act—one as Itinerating Inspector and the other as Harbour Veterinary Surgeon—the work of both of whom is supervised by the Principal, have been of great advantage to the City, ensuring a skilled and careful supervision of centres from which disease may spread and the prompt detection of infectious cases. The remarks of the Principal in paragraph 7 may be communicated to the Judicial Department for such action as may be considered necessary, and to the Military Department for information. The Principal also rendered assistance in examining horses for the Horse-Breeding Department, in selecting grass and grain for the Commissariat Department and in other directions.

6. The Riding School instituted in 1891 owing to the facilities afforded by the loan of horses from His Excellency the Governor's Body Guard continues to thrive; the want of a botanical garden noticed in the last report has to a certain extent been met by utilizing for the purpose a portion of the compound of the Sewri Lazaretto; and the forge has been placed in charge of a Farrier Sergeant, who besides giving practical lessons in shoeing gave a course of instruction in grooming, clipping, &c. Under the head "Buildings" the cattle-shed which was erected at the expense of Bai Dinbai, widow of the late Mr. Nasarwanji Manekji Petit, and which will serve as a model of what a cattle shed should be, deserves special mention. It is reported that the clerical establishment is not sufficient for the increasing office work, and the Principal may submit proposals for strengthening it through the Director of Public Instruction.

7. The Governor in Council is pleased to learn that many of the suggestions made by the Committee appointed to inquire into the sanitary condition of the College premises and surroundings have been adopted by the Society for Prevention of Cruelty to Animals. The College, however, is much hampered in giving practical instruction. The Society prohibits operations being performed in its Hospital, and Professors and pupils have in consequence to walk to Sewri Lazaretto. This arrangement is highly inconvenient and conducive to the interests neither of the pupils in the College nor of the patients in the Hospital. The animals to be operated upon have to be taken to the Lazaretto and brought back to the Hospital,—a journey of nearly three miles. His Excellency in Council is constrained to remark that the action of the Society which prohibits operations for the relief of suffering animals being performed within the Hospital premises is hardly consistent with the professed object of the Society. Considering the difficulties under which the Principal and his Staff laboured, the work done by the College was decidedly satisfactory.

8. Copies of the report and of this Resolution may be sent to the Government of India and the Secretary of State.

G. C. WHITWORTH,
Acting Secretary to Government.

To

The Director of Public Instruction,
The Accountant General, Bombay,
The Commissioners of Divisions and in Sind,
The Principal, Bombay Veterinary College,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Political Department of the Secretariat,
The Political Agent, Káthiáwár,
The Political Agent, Cutch,
The Political Agent, Kolhápur and Southern Marátha Country,
The Political Agent, Mahi Kántha,
The Political Agent, Rewa Kántha,
The Political Superintendent, Pálanpur,
The Political Superintendent, Sávantvádi,
The Political Resident, Aden,
The Superintendent, Civil Veterinary Department,
The Director of Land Records and Agriculture,
The Principal, College of Science, Poona,
The Compiler of the General Administration Report,

} With copies of the Report.

The Military Department of the Secretariat,
The General Department of the Secretariat,
The Revenue Department of the Secretariat,
The Judicial Department of the Secretariat,
The Sanitary Commissioner, Bombay,
The Editors' Table, Bombay,
The Editors' Table, Poona (care of City Magistrate, Poona),
The Editor and Proprietor, *Dhárwár Vritta* (for his own use and for circulation to other Editors of newspapers in Dhárwár),
The Municipal Commissioner for the City of Bombay,
} *With copies of the Report.*

The Superintendent, Government Central Press (with a request that the copies of the Report required by this Department may be sent as soon as possible).

The President, Municipal Corporation, Bombay,
The Secretary to the Society for Prevention of Cruelty to Animals,
The Government of India,
The Secretary of State for India,
The Director of Records to the Government of India, Imperial Secretariat Buildings, Calcutta,
The Reporter on Economic Products to the Government of India.
} By letter.

REPORT

ON THE

BOMBAY VETERINARY COLLEGE

FOR THE YEAR 1893-94.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1894.

[Price—4 Annas.]

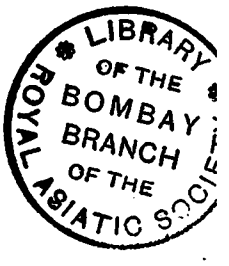
BOMBAY BRANCH
OF THE
Royal Asiatic Society.
CLASS

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

FOR THE YEAR 1893-94.



Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1894.

No. 526 of 1894.

From

JAMES MILLS, M.R.C.V.S., J. P., F.B.U., Vety.-Capt. A. V. D.,
Principal, Bombay Vety. College;

To

K. M. CHATFIELD, Esq., M.A.,
Director of Public Instruction,
Poona.

Bombay Veterinary College:
Parel, 2nd July 1894.

Sir,

I have the honour to submit the eighth annual report of the Bombay Veterinary College, dealing with the work of the official year ending 31st March 1894. Embodied in the report will be found a brief outline of the duties performed in connection with the Bái Sákerbái Dinshaw Petit Hospital for Animals, for the year ending 31st December 1893.

2. The professional examinations commenced on the 17th April 1893, and terminated on the 28th of the same month. The Board consisted of the following gentlemen :—

President.

Veterinary Captain J. W. A. Morgan, Superintendent, Civil Veterinary Department, Bombay.

Members.

Veterinary Lieutenant F. W. Sharp, A. V. D., Veterinary Lecturer, Science College, Poona.

Dr. M. G. Deshmukh, B.A., M.D., B.Sc., Bombay.

Mr. N. D. Dhakmarvala, G.B.V.C., Lecturer on Anatomy and Physiology, B. V. C.

Mr. V. E. Vakharia, G.B.V.C., Lecturer on Chemistry, B. V. C.

Secretary.

Veterinary Captain James Mills, A. V. D., Principal, Bombay Veterinary College.

The final meeting of the Board and members of the teaching staff took place on the 28th April, when the results were declared, which will be found in Appendix A. The prizes were at the same time awarded, *vide* Appendix B.

It will be seen from Appendix A that 28 candidates passed in the three classes out of 37 that presented themselves for the examinations, thus increasing the percentage of successful students from 47·4 to 75·67, on comparing the results with those of last year with the year under report.

Number of, and changes in, students.

3. On the 1st April 1893 there were 38 students on the College rolls; 26 fresh students entered during the year. 16 students left the College, 11 of whom obtained the diploma of Graduate, three discontinued their studies because of their frequent failures at the examinations, one was struck off the rolls for misdemeanour, and one for continued absence without leave.

The entries during this year showed an increase of 12 as compared with the previous year, among whom there are many most suitable men for the profession. The changes in the number of students are shown in Appendix C.

Information relating to students.

4. Appendix D gives the number of students of each nationality on the College rolls during the year under report. In the new admissions all the nationalities have been fairly represented, there being 3 Europeans, 4 Pársis, 1 Eurasian, 13 Hindus, 1 Jew, and 4 Mahomedans.

Appendix E shows the number of students attending supported by Local Fund Boards and Native States. There is an increase of one over that of the last year. Of these 11 men, 8 are Hindus, 1 a Mahomedan, 1 a Budhist and 1 a Jew.

Employment of Graduates.

5. The demand for the services of Graduates was much the same as last year. All the men who obtained the diploma in April 1893 got employment. One, on a salary of Rs. 100 at the Remount Depôt at Ahmednagar; one, on a salary of Rs. 105, including allowances, under the Bombay Municipality, as Superintendent of the Zoological Collection at the Victoria Gardens; one, on a salary of Rs. 100, under the District Local Board, Shikárpur; one, as an Itinerating Veterinary Graduate, on a salary of Rs. 50 rising to Rs. 100, at Bhadgaon in the Khándesh District; one, as a Veterinary Graduate in charge of the Veterinary Dispensary, Jalgaon, on a salary of Rs. 50 rising to Rs. 100; four, under the Native States of Bhávnagar, Junágad, Mysore, and Gwalior, on a starting salary of Rs. 50 each, and the remaining two, as Assistant Veterinary Officers at the College.

6. Applications have been received for men for the appointments of Itinerating Veterinary Graduates in the Shikárpur, Hyderabad, and Násik districts, and also for Veterinary Graduates for dispensaries at Dhárwár, Surat, and Sholápur, and there are still vacancies for two Graduates as Lecturers at the Calcutta Veterinary Institute, and the Ajmere Veterinary School, but, owing to the paucity of men, these appointments could not be filled up. Applications were also received for the services of Graduates for Zanzibar, and the Native State of Pratápgad.

Contagious diseases.

7. Mr. D. F. Dubash, G.B.V.C., was appointed Acting Harbour Veterinary Surgeon, on 20th June 1893, vice Mr. I. V. Vaz, G.B.V.C., who obtained the appointment of Veterinary Overseer, Babugarh Stud Farm.

Mr. Ralph St. J. Walley, M.R.C.V.S., was appointed, on the 4th September 1893, an additional Veterinary Surgeon under Section 7 of the Glanders and Farcy Act, for the City and Island of Bombay including the Port.

Foot and Mouth Disease and Rinderpest were generally prevalent throughout the year, more especially from November 1893 to March 1894, when a somewhat serious outbreak of both these diseases was reported in the Karjat Táluka and in the City and Island of Bombay. Two graduates, Messrs. B. S. Shroff and A. P. Laskari, the former to Karjat and the latter to Bombay, were appointed to deal with the cases and to advise owners as to the treatment and care of their cattle.

I regret there was no means of obtaining reliable figures as regards the numbers attacked and died, because of the fact that owners in very many cases afforded the Graduates little or no assistance, and treated the outbreaks more as a visitation from God than as due, in a great measure, to their own stolid apathy and carelessness.

Foot and Mouth Disease also made its appearance amongst the cattle of the Commissariat Department in Bombay. This outbreak I personally investigated, and my orders having been carefully carried out it was speedily arrested.

Glanders and Farcy.—Twenty-eight horses were destroyed under Act XX of 1879, being a decrease of 9 as compared with the previous year, which is decidedly satisfactory. Of the 28 cases, 7 came from the Arab stables, Byculla, 4 belonged to private stables, 7 to hack ghárry-wallahs, 8 unknown (abandoned), and 2 were found on board the ships arriving in the harbour, both from the Persian Gulf, as against 1 in the previous year.

Various suggestions were made to Government with the view of improving the condition of the stables in Bombay and for amending Act XX of 1879, but action in this direction has been deferred pending further report. They included :—

(1) that there should be systematic inspection;

(2) that overcrowding of stables should be made penal and that it should be compulsory on owners for each horse to be allowed a given number of square feet of stable room;

(3) that urine traps in stalls should be totally abolished and the dry-earth system be introduced;

(4) that copies of the Glanders and Farcy Act should be posted in all dealers' and hack ghárry owners' stables in the Vernacular and Arabic;

(5) that the treatment of glanders cases by unqualified persons and the sale and abandonment of glandered horses should be prohibited;

(6) that the disinfection of horse boxes, cotton waggons and cattle trucks used for the conveyance of horses by rail should be rendered imperative;

(7) that the Principal should be invested with some legal powers, either Magisterial or Police, to enable him to carry out the provisions of the Glanders and Farcy Act.

A severe form of disease, probably glanders, was reported to exist in the dominions of His Highness the Sultan of Zanzibar. Suggestions were at once made to the Commissioner of Police that strict orders be given that no animals or hides be allowed to land until carefully inspected, which was duly carried out.

Inspections of the various stables at Byculla and elsewhere have been made from time to time during the year, by myself and the Graduates employed under Act XX of 1879.

Rabies and Hydrophobia.—Six cases of rabies were admitted to the B. S. D. P. Hospital during the year, an increase of one over the previous year. 5,049 dogs were destroyed by the Police as againt 8,364 in 1892-93, a decrease of 3,315. Two deaths from hydrophobia were reported by the Coroner of Bombay to have taken place, a decrease of one, a marked improvement on 1891-92 when the deaths from this cause stood at seven.

8. Government sanctioned Rs. 240 as an annual grant to meet the contingent expenses in connection with the Lazaretto. Medicines and necessaries were purchased at a cost of Rs. 336-4-0.

Lazaretto.

A hut for the *chaukidár* has been constructed at an outlay of Rs. 403-8-6, also a trevis costing Rs. 55-4-11.

The cinerator has proved of great value, both from a sanitary point and for the speedy cremation of carcasses.

No water has as yet been laid on to the Lazaretto.

9. During the year 5,999 animals were imported into Bombay from the following places :—Persian Gulf, 4,445 horses and 17 donkeys; England, 54 horses; Australia, 1,109 horses; Mauritius, 4 horses; Austria-Hungary, 11 horses; Ceylon, 8 horses; China, 1 horse; Indian ports, 218 horses and 110 cattle; and Italy, 8 horses and 14 donkeys.

Animal imports.

The imports of horses for this year show an increase of 1,552 as compared with last importing season. The greatest increase comes from the Persian Gulf, which stands at 1,310, next comes Australia with 311, and England 38, whereas Indian ports show a decrease of 139.

One vessel passed through Bombay conveying 110 Walers for Madras, and another with two elephants for the Sultan of Zanzibar.

Extra duties.

10. The following extra duties were performed by the Principal :—

(*a*) Attended Agricultural Conference at Simla.

(*b*) Served as a Member of the Veterinary Conference at Simla.

(*c*) Visited Hissar Cattle Farm, Babugarh Horse-Breeding Depôt, Saharanpur Remount Depôt, and Lahore and Ajmere Veterinary Schools.

(*d*) Acted as Examiner at the Bombay University in Veterinary Medicine and Surgery for the diploma in Agriculture.

(*e*) Inspection of horses in the Bombay stables, at the Harbour, and Lazaretto.

(*f*) Assisted the Inspector General, Civil Veterinary Department, in the selection and purchase of stallions for the Horse-Breeding Department.

(*g*) Advised as to the management and treatment of animals at the Victoria Gardens, in the capacity of Honorary Veterinary Surgeon.

(*h*) Advised the Commissioner of Police in regard to the working of Act XX of 1879, Glanders and Farcy, and examined horses as to soundness for the Mounted Police.

(*i*) Visited Máhim to investigate foot and mouth disease.

Mr. N. D. Dhakmarwala, Acting Assistant Professor and Resident Veterinary Officer, was deputed to visit the Horse-Breeding Depôt at Babugarh, the Saharanpur Remount Depôt, the Lahore Veterinary School, and Hissar Cattle Farm.

Teaching Staff.

11. Dr. S. K. Nariman, Assistant Professor and Resident Veterinary Officer, who was on leave, resigned his appointment from 1st March 1894. Mr. N. D. Dhakmarwala succeeded him *sub, pro tem.* and continued to act until relieved by Vety. Lieut. H. T. Pease, A. V. D., Assistant to the Inspector General, Civil Veterinary Department, on the 12th March 1894, who was appointed to perform the duties of Assistant Professor in addition to his own. Mr. Dhakmarwala conducted the duties in connection with the appointment of Resident Veterinary Officer during the year and resided on the premises. He also, during my absence at Simla, from September 20th to October 19th, 1893, acted as Principal.

Farrier T. Evans, Instructor in Shoeing, was dismissed, from 27th September 1893, for misconduct, and owing to the difficulty of obtaining an European Farrier to succeed him, the duties of the appointment were distributed between a *Nálband* and the Itinerating Veterinary Inspector. Mr. Dhakmarwala has performed his duties, heavy as they have been, to my entire satisfaction. Mr. Vakharia has also performed his duties satisfactorily.

Branches of Study.

12. *Anatomy and Surgery.*—Eighteen horses were procured during the year for operations on the dead subject and for dissection.

Hygiene.—The Commissariat Department again kindly lent mules and pack saddles for teaching purposes.

Sir Dinshaw Manekji Petit Patho-Bacteriological Laboratory.—This Laboratory has proved of the greatest value to the College for instruction in microscopy, the investigation of disease, and for the conducting of experiments. During the year a series of experiments were conducted, under the instructions of the Imperial Bacteriologist, in relation to Surra, and many specimens of blood, &c., were examined which had been sent for opinion.

The sum of Rs. 537-11-9 has been expended by Government on the Laboratory in painting, colour-washing, and in fixing rain water pipes outside the building from roof to basement.

Excursions.

13. The students of Class " C," by permission of the Survey Commissioner and Director of Land Records and Agriculture, were allowed to visit the Government Dairy Farm at Kirkee, where the Superintendent, Mr. Mollison, kindly gave them a thorough

insight into the working of a dairy and the management of milch cows. I felt so convinced that excursions of this description would prove of benefit to the students in gaining knowledge, which it is impossible to impart in a practical manner at the College, that I asked for a grant to enable me to make such excursions a recognised institution, and Government were pleased to allot an annual grant of Rs. 500 for this purpose. I now intend that the students of the senior class shall visit horse and cattle shows, remount and horse-breeding depôts, &c.

Excursions to the Victoria Gardens, Bombay, were conducted under the supervision of the Lecturer on Botany for the purpose of practical demonstrations.

Physical training.

14. The riding class was conducted on the same lines as last year. Indian clubs, dumb-bells, and boxing-gloves have been added to the physical training kit.

The annual sports were held on the anniversary of the College, *viz.* the 2nd August.

Museum and Library.

15. The Museum has been thoroughly overhauled and printed labels put on each specimen. Many valuable additions have been made to it. Several new works have been purchased for the Library, and periodicals bound.

Donors of prizes.

16. I beg to thank the undermentioned gentlemen for their kindness in contributing to the College prize list :—

Sir D. M. Petit, Bart.

Veterinary Lieut.-Colonel J. H. B. Hallen, C.I.E.

Veterinary Captain J. W. A. Morgan.

Mr. N. D. Dhakmarwala.

The Honourable Mr. Justice Bayley, and Dr. S. K. Nariman withdrew their names from the list of prize donors, and the names of the following gentlemen were added :—Veterinary Lieut.-Colonel J. H. B. Hallen, C.I.E., Mr. N. D. Dhakmarwala, G.B.V.C., and M. R. Ry. Sah Man Mull, Banker, Madras, who made an offer of Rs. 225 for the purpose of founding a silver medal in his name, to be awarded to the best Hindu student at the Diploma examinations. Government were pleased to accept the offer and instructed the Principal to thank Mr. Sah Man Mull for his generosity.

Mr. S. G. Haji, Veterinary Graduate, L. F. Board, Karáchi, and Messrs. Ludha Ebrahim and Company, Bombay, have been kind enough to award scholarships to Mahomedan students, which I accepted with thanks.

I have also added two scholarships to the list myself and awarded them to deserving Mahomedans.

Visitors.

17. His Highness the Thákor Sáheb Mansingji of Pálitána and suite visited the College to attend a lecture on, and to witness the operation of, castration, and also a practical demonstration on the use of chloroform on the lower animals, at Sewri, by the Principal. His Highness expressed himself as pleased with what he saw.

Prince Basavappa Pvaja Urs from Mysore.

Professor Ben. K. Emerson, Amherst College, Massachusetts.

Dott Angelo Corradi, Gen. Medico Reggt. Artiglieria a Cavallo, Italian Army.

Veterinary Lieut.-Colonel J. H. B. Hallen, C.I.E., Inspector-General, Civil Veterinary Department, who kindly delivered a lecture on Mule-breeding.

Sir Dinshaw Manokji Petit, Bart.

Dr. A. Lingard, Imperial Bacteriologist.

Veterinary Captain J. Nunn, D.S.O., Principal, Veterinary School, Lahore.

Veterinary Captain R. Hagger, Principal, Veterinary School, Ajmere.

Mr. Framji Dinshaw Petit.

Hospital.

18. The records of the hospital give the following information relative to patients :—

(*a*) *In-patients.*—1,541 cases were admitted in 1893 as compared with 1,705 in 1892, showing a decrease of 164. The various classes of animals admitted were as follows:—

Horses 320, cattle 1,046, and dogs 175.

The daily average was 165; this stood at 163 in 1892, an increase of 2.

(*b*) *Out-patients.*—608 cases were treated. The number in 1892 was 894, a decrease of 286.

(*c*) *Mortality.*—The rate of mortality in horses, cattle and dogs was nearly the same as last year.

(*d*) *Stable management.*—The new stable floors continue to give every satisfaction and the dry earth system as well.

(*e*) *Buildings.*—A handsome arched gateway has been erected at the Government House road entrance to the hospital by Bái Dinbái N. M. Petit, at a cost of Rs. 4,000.

(*f*) *Management.*—Mr. J. B. Baver and his Assistant have given me every assistance in the work of the hospital.

College Committee.

19. Government, in their Resolution, Educational Department, No. 1791, dated 28th August 1893, appointed a Committee, composed of the following gentlemen, to report as to whether it was desirable or feasible to remove the College from Bombay to Poona:—

President.

The Survey Commissioner and Director of Land Records and Agriculture.

Members.

The Principal, College of Science, Poona.
The Principal, Bombay Veterinary College.
The Superintendent, Civil-Veterinary Department, Bombay.
The Sanitary Commissioner.
The Executive Engineer, Presidency.

The Committee have submitted their report to Government.

Financial Statement.

20. Appendix F is the financial statement of the College, including Sewri Lazaretto and the Harbour Veterinary Surgeon. From it, it will be seen that the amount of Rs. 28,677 was spent on account of the College proper, an increase of Rs. 129, as compared with the previous year, and Rs. 582 in 1891-92. Deducting actual receipts, the cost to Government of maintaining the College was Rs. 24,427. This statement does not embrace the expenditure on account of payment of leave allowance made in England to Dr. Nariman. Government have sanctioned the following grants:—

Rs. 360. Pay of Second Clerk, annual.
„ 500. Excursion grant, annual.

The total expenditure incurred on account of the Sewri Lazaretto was Rs. 2,135, and for the Harbour Veterinary Surgeon Rs. 780.

Clerical staff.

21. Government have, in their Resolution, Educational Department, No. 2762, dated 14th December 1893, sanctioned a second clerk for the office, on a salary of Rs. 30 per mensem. Mr. V. B. Phatak, Head Clerk, continues to give every satisfaction.

Literature and Inventions.

22. My work—Plain Hints on the Diseases of Cattle in India—is passing through a second edition and will be shortly issued.

The Horse-sling and Anti-windsucking-bit, invented by me, have been patented and my Cinerator is about to be so.

I have the honour to be,
Sir,
Your most obedient Servant,

JAMES MILLS, Veterinary Captain, A. V. D.,
Principal, Bombay Veterinary College.

APPENDIX A.

Bombay Veterinary College.

Results of Examinations, April 1893.

Examination.	First Class.	Second Class.	Pass.	Total of Candidates.		Percentage of Passes.
				Examined.	Passed.	
First Professional	4	5	2	15	11	73·33
Second Professional	2	2	2	7	6	85·71
Third Professional	2	9	...	15	11	73·33
Total ...	8	16	4	37	28	75·67

JAMES MILLS, Veterinary Captain, A. V. D.,
Principal, Bombay Veterinary College.

2nd July 1894.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

APPENDIX B.

Return of Prizes, &c., awarded to Students of the Bombay Veterinary College for 1893-94.

Number.	Subject.	Nature.	Value.	Successful Candidate.	Donor's Name.
			Rs.		
1	Best practical man, Class C	Money	100	Mahomed Khan	Lieutenant-Colonel J. H. B. Hallen, C.I.E.
2	Best man in Shoeing	Shoeing Tool Case	25	J. M. Doctor	Veterinary Captain James Mills.
3	Best man in Examinations as to Soundness.	Silver Medal	15	N. N. Aiyangar	Government.
4	Obstetrics and Breeding...	Books	16 16	Mahomed Khan ... ... L. K. Vedh	Veterinary Captain Morgan.
5	Medicine and Surgery, Class C	Books and Instruments ...	50	Mahomed Khan	Veterinary Captain James Mills.
6	Best man in Class B.	Do. do. ...	40	W. A. De Silva	Sir Dinshaw Manekji Petit, Bart.
7	Best man in Anatomy and Physiology, Class B.	Do. do. ...	20	Do.	Mr. N. D. Dhakmarwala.
8	Handling of Animals	"Steel" Silver Medal	15	C. Engel	Steel Memorial Committee.
9	Best man in Class A	Books	20	R. J. Ghosla	Sir Dinshaw Manokji Petit, Bart.
10	Best man in Anatomy and Physiology, Class A.	Instruments	10	G. D'Silva	Mr. N. D. Dhakmarwala.
11	Results of Examinations	Government Scholarships ...	60 each ...	Class B.—W. A. D'Silva and V. K. Vairajkar. Class A.—R. J. Ghosla, Munshi, Engel, G. D'Silva, Soman and Jalihal.	.....

JAMES MILLS, Veterinary Captain, A. V. D.,
Principal, Bombay Veterinary College.

2nd July 1894.

APPENDIX C.

Bombay Veterinary College.

Return showing Changes in the Number of Students in 1893-94.

Class.	Number of Students on 1st April 1893.	Withdrawals, 1893-94.		Entries, 1893-94.		Number of Students on 1st April 1894.	Remarks.
		Number of Students left the College.	Number of Students transferred.	Number of Students transferred.	New entries.		
Class C	15	12	...	6	1	10	
Class B	8	1	6	11	...	12	
Class A	15	3	11	...	25	26	
Total ...	38	16	17	17	26	48	

APPENDIX D.

Bombay Veterinary College.

Table showing the Number and Nationality of Students for the year 1893-94.

Caste.	Paying.	Native States.	Goverment, Free.	Municipal, Free.	Total.	Remarks.
Class C.						
Pársis	2	...	...	...	2	
Hindus	1	2	1	...	4	
Mahomedans	...	...	1	...	1	
Portuguese and Native Christians.	1	....	...	...	1	
Jews	...	...	1	...	1	
Budhists	...	1	...	...	1	
Total ...	4	3	3	...	10	
Class B.						
Hindus	1	2	4	...	7	
Portuguese and Native Christians.	1	...	...	...	1	
Europeans and Eurasians ...	2	...	2	...	4	
Total ...	4	2	6	...	12	
Class A.						
Pársis	3	...	1	1	5	
Hindus	5	4	2	1	12	
Mahomedans	2	1	...	1	4	
Europeans and Eurasians ...	4	...	...	...	4	
Jews	...	1	...	...	1	
Total ...	14	6	3	3	26	
Grand Total ...	22	11	12	3	48	

JAMES MILLS, Veterinary Captain, A. V. D.,
Principal, Bombay Veterinary College.

2nd July 1894.

APPENDIX E.

Return showing Caste and number of Students from Native States, Local Boards, &c., attending the Bombay Veterinary College during the year 1893-94.

Province, Presidency or State.	Number of Hindus.	Number of Mahomedans.	Number of Budhists.	Number of Jews.
Berárs, Nizám's State	1	...	...	...
Junágad State	1	1	...	...
District Local Board, Shikárpur	...	...	...	1
Kolhápur State	1	...	...	...
Bhávnagar State	1	...	...	...
Dhrángadhra State	1	...	...	...
Ceylon Government	...	...	1	...
Rájpipla State	1	...	...	...
Mángrol State	1	...	...	...
Pálitána State	1	...	...	...
Total ...	8	1	1	1

JAMES MILLS, Veterinary Captain, A. V. D.,
Principal, Bombay Veterinary College.

2nd July 1894.

APPENDIX F.

Financial Statement of the Bombay Veterinary College, 1893-94.

Income. Heads.	1892-93. Rs. a. p.	1893-94. Rs. a. p.	Expenditure. Heads.	1892-93. Rs. a. p.	1893-94. Rs. a. p.	Remarks.
From Government salaries—						
Teaching staff	18,360 0 0	20,760 0 0				
Establishment	1,416 0 0	1,608 0 0	Teaching staff	21,132 12 0	19,719 7 9	
Contingent	628 0 0	928 0 0	Establishment (including Bacteriological Laboratory servants) ...	1,604 0 0	1,708 2 1	
Scholarships	900 0 0	900 0 0	Contingent expenditure	817 9 5	797 14 1	
Chemicals, &c.	200 0 0	200 0 0	Scholarships	900 0 0	900 0 0	
Examiners' fees	300 0 0	300 0 0	Chemicals, &c.	170 9 4	201 13 10	
Riding fees	.....	300 0 0	Examiners' fees	300 0 0	243 12 0	
House-rent allowance... ...	1,020 0 0	1,020 0 0	Riding fees	.....	416 0 0	
Books and diagrams, &c. ...	138 0 0	138 0 0	House-rent allowance	991 4 0	897 2 8	
Conveyance allowance to Principal.	.....	420 0 0	Travelling allowance	180 8 0	861 3 0	
Travelling allowance to Officers ...	200 0 0	200 0 0	Furniture and apparatus	461 1 4	521 12 9	
Furniture and apparatus ...	336 0 0	544 0 0	Building and repairs	442 12 0	846 11 1	
Special charges, Patho-Bacteriological Laboratory	1,000 0 0	.....	Conveyance allowance	350 0 0	420 0 0	
Buildings and repairs ...	472 0 0	849 0 0	Books, diagrams, &c.	301 5 7	243 6 0	
From Bombay Municipality ...	2,500 0 0	*2,500 0 0	Honorarium to three Assistant Veterinary Officers	896 10 8	900 0 0	
From students' fees	1,260 0 0	*1,719 0 0	Lazaretto Establishment... ...	643 0 0	900 0 0	
Rent of students' quarters... ...	54 0 0	*40 0 0	„ Contingent grant ...	.....	238 14 6	
Sale-proceeds of packing material ...	0 14 0	.....	„ purchase of furniture, medicines, instruments, &c. ...	100 0 0	336 4 0	
From Government—			„ Do. of books ...	61 8 0	.....	
Lazaretto Establishment ...	900 0 0	900 0 0	„ Buildings and repairs ...	2,901 5 11	660 4 1	
„ Contingent grant ...	.....	240 0 0	Harbour Veterinary Surgeon's pay and allowances	309 5 8	780 0 0	
„ purchase of furniture, instruments, medicines, &c.	100 0 0	368 0 0				
„ Books	61 8 0	.....				
„ Buildings and repairs...	3,400 0 0	688 0 0				
Harbour Veterinary Surgeon's pay and allowances	390 0 0	780 0 0				
Total ...	33,636 6 0	35,393 0 0	Total ...	32,563 11 11	31,592 11 10	

Note—The items marked * shew actual receipts of the College, while the other items merely denote the Budget provision.

2nd July 1894.

JAMES MILLS, Veterinary Captain, A. V. D.,
Principal, Bombay Veterinary College.

Administration Reports.

Bombay Veterinary College.

Report of the Principal of the — for the year 1893-94.

No. 1695.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 21st August 1894.

Letter from the Director of Public Instruction, No. 2223, dated the 31st July 1894—Submitting, with his remarks, the annual report of the Bombay Veterinary College for the year 1893-94.

RESOLUTION.—The satisfactory features of the annual report now submitted are the net increase of ten students — 26 having joined and 16 left in the year, the increase in successful candidates for the examination from 47 to 75 per cent. of the examinees, and the increasing demand for the services of competent students. Paragraphs 7, 8 and 9 of the report are very interesting, and contain useful information; but it has nothing or scarcely anything to do with the College or the Educational Department, since all proceedings under the *Glanders and Farcy Act* have been now subordinated to the Judicial Department. The Principal should, therefore, be requested to discontinue in his report on the College references to operations under that Act, and the Judicial Department should be asked to communicate to Veterinary Captain Mills in his capacity as a Veterinary Surgeon under the Act instructions as to the submission of any report that Government may consider necessary on the subjects of the working of the Act in Bombay, and of the establishment maintained or employed under it. The cost to Government of maintaining the College was Rs. 24,427, exclusive of the leave allowances of Dr. Nariman. Of the 48 students on the rolls on the 31st of March last, 23 were Hindus, 8 Europeans and Eurasians, 7 Parsis and 5 Mahomedans. The Native States and the Ceylon Government sent 10 of these students, and it may be safely affirmed that the institution is meeting a widely extended demand. The Director of Public Instruction should be asked to report whether any Native States are contributors towards the maintenance of the College: whether the fees for students from Native States, and from British Colonies are the same as for students from British Indian Territory; and if they are, whether it would not be legitimate to charge a higher fee for students from non-contributing States and Colonies.

2. To the success attained during the past year the labours of Veterinary Captain Mills and his Assistants have mainly contributed, and when, as Government trust will shortly be the case, all difficulties with the Society for the Prevention of Cruelty to Animals have been overcome, Government feel satisfied that the success of the College will be fully assured. It is a matter of satisfaction to Government that at length the appointment of a Second Veterinary Surgeon has been sanctioned by the Government of India on the teaching staff of the College.

W. LEE-WARNER,
Secretary to Government.

To

The Director of Public Instruction,
The Accountant General, Bombay,
The Commissioners of Divisions and in Sind,
The Principal, Bombay Veterinary College,
All Collectors, including the Collectors and Deputy Commissioners in Sind,

} With copies of the Report.

[*P. T. O.*

The Political Department of the Secretariat,
The Political Agent, Káthiáwár,
The Political Agent, Cutch,
The Political Agent, Kolhápur and Southern Marátha Country,
The Political Agent, Mahi Kántha,
The Political Agent, Rewa Kántha,
The Political Superintendent, Pálanpur,
The Political Superintendent, Sávantvádi,
The Political Resident, Aden,
The Superintendent, Civil Veterinary Department,
The Survey Commissioner and Director of Land Records and Agriculture,
The Principal, College of Science, Poona,
The Compiler of the General Administration Report,
The Military Department of the Secretariat,
The General Department of the Secretariat,
The Revenue Department of the Secretariat,
The Judicial Department of the Secretariat,
The Sanitary Commissioner for the Government of Bombay,
The Editors' Table, Bombay,
The Editors' Table, Poona (care of City Magistrate, Poona),
The Editor and Proprietor, *Dhárwár Vritta* (for his own use and for circulation to other Editors of newspapers in Dhárwár),
The Municipal Commissioner for the City of Bombay,

} With copies of the Report.

The Superintendent, Government Central Press (with a request that the copies of the Report required by this Department may be sent as soon as possible).

The President, Municipal Corporation, Bombay,
The Secretary to the Society for Prevention of Cruelty to Animals,
The Government of India,
The Secretary of State for India,
The Director of Records to the Government of India, Imperial Secretariat Buildings, Calcutta,
The Reporter on Economic Products to the Government of India.

} By letter.

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